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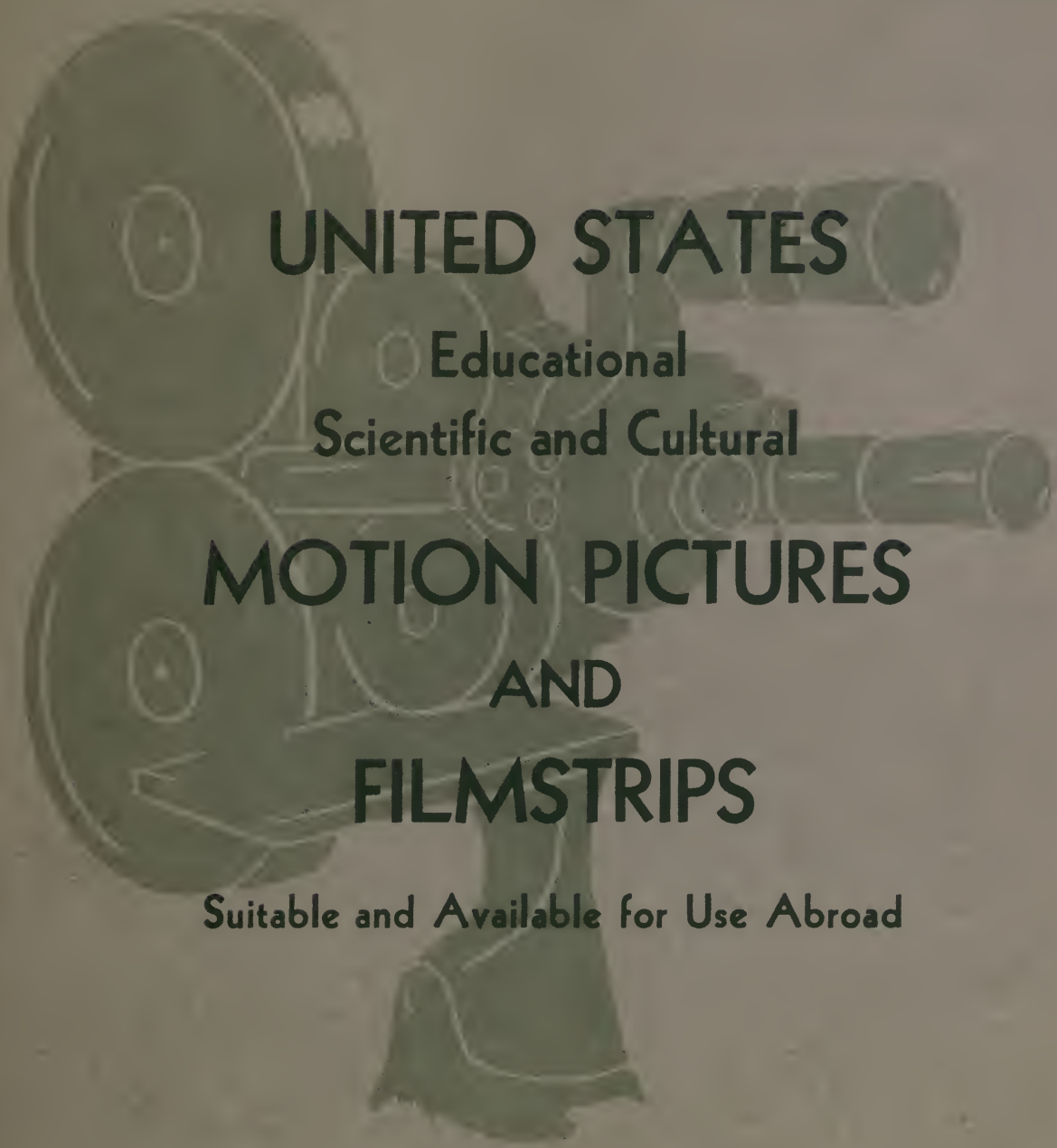

UNITED STATES

Educational
Scientific and Cultural

MOTION PICTURES
AND
FILMSTRIPS

Suitable and Available for Use Abroad

THE DEPARTMENT OF STATE

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UNITED STATES

Educational
Scientific and Cultural

MOTION PICTURES
AND
FILMSTRIPS

Suitable and Available for Use Abroad

REPORT OF THE PANEL ON
EDUCATIONAL FILMS SUB-
COMMITTEE ON CATALOGUE
UNITED STATES NATIONAL
COMMISSION FOR UNESCO

JULY 1952

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JUN 3 1952

My dear Mr. Director General:

I take pleasure in enclosing a copy of the Second Edition of the publication United States Educational, Scientific and Cultural Motion Pictures and Filmstrips Suitable and Available for Use Abroad. The First Edition and its Supplement have been previously transmitted to you.

The United States National Commission for UNESCO is pleased to have received from National Commissions of certain other Member States copies of their catalogues of educational, scientific and cultural films, in connection with the resolution of the Fifth Session of the General Conference which authorized the Director General "to stimulate the production of catalogues of selected films and filmstrips specifically related to UNESCO objectives."

Visual materials of the kind represented in these catalogues can be important tools in the performance of UNESCO's missions. The importance of free international flow of ideas in the form of visual and auditory materials has been demonstrated by UNESCO in formulating and adopting international agreements, operating the international film coupon plan and encouraging the publication of such catalogues.

It is hoped that the forthcoming meetings of experts, to be convened by UNESCO for the purpose of considering a draft international system of cataloguing such materials, will take fully into consideration the needs of the film use for complete, accurate,

evaluated

Dr. Jaime Torres Bodet, Director General,
United Nations Educational, Scientific
and Cultural Organization,
19 Avenue Kleber,
Paris 16, France.

*MEMBER OF EXECUTIVE COMMITTEE

evaluated information within the framework of a workable catalogue structure, and in doing so will provide guidance for the production of future catalogues such as this.

Sincerely yours,

Luther H. Evans
Chairman,
U. S. National Commission for UNESCO.

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THE UNITED STATES NATIONAL COMMISSION FOR UNESCO

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Columbus, Ohio

May 15, 1952

My dear Dr. Evans:

As Chairman of the Panel on Educational Films, on March 1, 1950, I submitted to the Chairman of the United States National Commission for UNESCO, a report entitled "United States Educational, Scientific, and Cultural Motion Pictures Suitable and Available for Use Abroad", and on May 10, 1951, I submitted a Supplement to that report.

The accompanying document is the third installment on this continuing work, undertaken at the request of UNESCO. It is a cumulation of the entries contained in the previous reports, and includes some 3,163 film entries and 1,017 filmstrips.

Miss Irene A. Wright, Chairman of the Subcommittee on Catalogue, has been responsible for this work from its beginning. The entire project, from the screening and evaluation of the films to the final publication, is under her supervision. The catalogue could not have been produced, however, without the professional advice and assistance of the Subcommittee and the members of the Advisory Board, who have evaluated the films listed.

Special mention should be made of the usefulness of film digests and appraisal reports prepared at the State College of Washington for the Economic Cooperation Administration, which were made available to the Subcommittee.

Dr. Luther H. Evans, Chairman,
United States National Commission
for UNESCO,
Washington, D. C.

*MEMBER OF EXECUTIVE COMMITTEE

It is the hope of the Panel on Educational Films that on behalf of the National Commission you will accept this work for transmittal to the Director General of UNESCO.

Sincerely yours,

Edgar Dale

Edgar Dale,
Chairman,
Panel on Educational Films.

Ohio State University,
Columbus, Ohio.

DEPARTMENT OF STATE
UNITED STATES INTERNATIONAL INFORMATION ADMINISTRATION
WASHINGTON

In reply refer to
REV

May 12, 1952.

My dear Dr. Dale:

It is my privilege as Chairman of the Subcommittee on Catalogue again to report to you, Chairman of the Panel on Educational Films of the United States National Commission for UNESCO. This third report takes the form of the Second Edition of the catalogue, United States Educational, Scientific and Cultural Motion Pictures and Filmstrips Suitable and Available for Use Abroad.

In this second edition are listed all of the films and filmstrips comprised in the First Edition and in the Supplement to the catalogue, which are presently available to foreign distribution. Other similar materials have been added and you will note in the Second Edition a large selection of films and strips produced by business organizations. In the selection of these subjects your Chairman made good use of the film digests and appraisal reports issued from the State College of Washington, where thousands of productions were reviewed and evaluated under the film project of the Economic Cooperation Administration.

It has always seemed to me to be a great credit to American industry that here in the United States it has created and maintains available for educational and informational use a very large reservoir of films and filmstrips in such fields as public health, agriculture, mining, forestry, livestock raising and milk processing, intended to increase productivity and augment national well being. Of course all of these were made for public relations purposes. In the best of them the advertising content is low and the educational content high. My only regret is that this material is not generally available abroad, free of charge. It is usually available at cost.

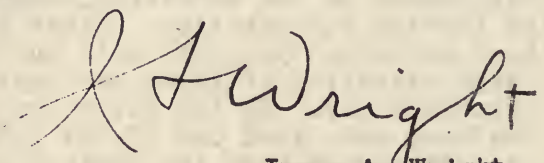
Dr. Edgar A. Dale,
Chairman, Film Panel,
United States National Commission,
for UNESCO,
Columbus, Ohio.

This edition of the catalogue represents a cumulation of three years of work undertaken by the Subcommittee and the Board of Advisers. I desire to express to you, and to them, deep appreciation for services and professional guidance rendered, which made this catalogue possible. You chose them well.

To this I should like to add equal appreciation of the cooperation of the producers of the materials listed in this publication. They have patiently filled out forms, corrected drafts, and answered repeated inquiries.

In structure and in content the second edition of the catalogue remains far from your Subcommittee's ideal - an ideal which doubtless may be more closely approached by my successors in this work, in which I have been happy because it has offered me close association with you, with the Panel, and with the Advisers. The catalogue's excellencies are yours and theirs; its defects, mine.

Sincerely yours,



Irene A. Wright

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Columbus, Ohio

ACKNOWLEDGMENT

The Board of Advisers desires to express gratitude to the following persons who were good enough to assist in the selection (for listing in this catalogue) of materials on a professional level dealing with preventive and curative medicine and surgery, mental health, etc.

Responsibility for the inclusion of such materials rests, however, with the chairman of the Subcommittee on Catalogue.

Mr. Ralph Creer, Secretary
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Officer in Charge
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Bureau of Medicine and Surgery
Department of the Navy
Washington 25, D.C.

STRUCTURE OF CATALOGUE

A. Education

I. Tools of Fundamental Education
  1. Schools, Colleges, Universities, and Other Institutions for Formal Education
  2. Libraries, Museums, Archives, and Exhibitions
  3. Clubs, Discussion Groups, and Other Groups for Informal Education
  4. Education Through Communications Media
  5. Education Through Service Organizations
    a. Labor Unions, Consumer and Producer Cooperatives
    b. Welfare Organizations
    c. Medical Organizations
    d. Religious Organizations
    e. Youth Organizations

II. Education for Health, Medicine, Surgery
  1. Preventive and Curative Medicine and Surgery
    a. Anatomy, Physiology, and Nervous System
    b. Anesthesiology
    c. Bacteriology
    d. Communicable Diseases
    e. Dentistry
      1. Anesthesia
      2. Bridgework
      3. Crowns
      4. Dental Materials
      5. Dentures
      6. Miscellaneous
      7. Oral Surgery
      8. Root-Canal Treatment
      9. Sodium Fluoride
    f. Dermatology
    g. Endocrinology
    h. Gynecology and Obstetrics
    i. Hematology
    j. Immunology
    k. Internal Medicine
    l. Nursing; Hospitals, Hospital Procedure
    m. Ophthalmology
    n. Otorhinolaryngology
    o. Pathology
    p. Preventive Medicine
    q. Surgery and Radiology
    r. Tropical Medicine and Parasitology
    s. Veterinary Medicine
  2. Personal Hygiene
  3. Community Hygiene
    a. Sanitary Engineering
    b. Extermination of Vermin
  4. Mental Health
    a. Nursing Care of Mentally Ill
    b. Neurology
    c. Psychology
    d. Psychiatry
  5. First Aid
  6. Physical Exercises, Physical Medicine, and Rehabilitation
  7. Safety
    a. At Home
    b. At School
    c. At Work
      Industrial Medicine and Surgery
      Occupational Health Problems
    d. In Transit
    e. In Recreation

III. Domestic Education
  1. Housing; Home Making
  2. Clothing; Sewing

3. Foods; Nutrition

IV. Language Arts
1. Speaking
2. Reading
3. Writing, Lettering
4. Languages
5. Study Skills

V. Education through Recreation
1. Handicrafts; Hobbies
2. Sports and Games

VI. Guidance, Training, Customs
1. Industrial; Distributive (business training)
2. Moral (including early home training); Humane Education
3. Professional
4. Social (behavior, manners, marriage)
5. Vocational

VII. Business, Economics; Manufacturing

VIII. Government, Citizenship

IX. Social Studies (people, their environment, manner of life, achievements, etc.)
1. American Life, History, etc.
2. Other

B. International Understanding

I. United Nations, Specialized Agencies, Regional Intergovernmental Organizations
II. Understanding Between Peoples
III. International Aid
IV. International Economics
V. International Transport
1. Land
2. Water
3. Air

VI. Communications, Media and Communications
1. Print
2. Film
3. Telephone and Telegraph
4. Radio
5. Television

VII. International Migration
VIII. Intergroup Understanding

C. Science

I. Astronomy
II. Biology
III. Botany
IV. Chemistry
V. Geography
VI. Geology, Mining, Metallurgy
VII. Mathematics
1. Arithmetic, Decimals, Percentage
2. Algebra
3. Geometry
4. Graphs

VIII. Physics (meteorology, electricity, nuclear physics)

D. Useful Arts

I. Agriculture
1. Crops; Soil Conservation, Fertilization, Irrigation; Flood Control
2. Livestock, Dairying; Poultry, Eggs; Bees
3. Management, Marketing; Equipment, Farm Life; Gardens, Orchards
4. Pests and Diseases: Control
5. Forestry, Firefighting, etc.

II. Engineering
III. Fishery, Trapping, etc.

E. Fine Arts

I. Architecture
II. Dance
III. Drama
IV. Drawing,Decoration, Design
V. Engraving, Lithography
VI. Landscape and Civic Art
VII. Music
VIII. Painting
IX. Photography; Film as Art
X. Plastic Arts

IMPORTANT NOTICE

The films hereafter listed alphabetically by title are 16 mm., black and white, sound, English narration and titles, unless otherwise stated. The filmstrips listed are 35 mm., black and white, silent, English narration and titles, unless otherwise indicated.

The date is that of production and/or release.

Unless otherwise indicated, these films may be obtained outside the United States by purchase only. The source from which films may be obtained is indicated in each entry by a symbol. For explanation of symbols and further information about sources and the conditions governing the distribution of these materials, persons interested are urged to study the Sources presented on pages 333 through 370.

A single √ after the title of a film means that a related filmstrip is available from the same source; such a check after the title of a filmstrip means that a related film is available from the same source.

A double √ √ means that language versions other than English are also available.

A single asterisk (*) after the description of a film or filmstrip means that it may be rented (usually within the United States only); a double asterisk (**) means that the production is obtainable without charge (possibly within a restricted area only).

All television rights are reserved, except as otherwise indicated.

The categories in which subjects belong are indicated in the upper right corner of each entry but it should be borne in mind that many productions might well be listed in more than one such category.

A grouping of motion pictures by categories is presented on pages 224-252; of filmstrips, on pages 324-332.

Please study IMPORTANT NOTICE, page xvi

A

1. ABC OF HAND TOOLS (1946) — A VI 1
33 min.; color. ** — GenM
Part I: Development of hand tools from stone age hammer to present perfection and efficiency. Care and handling of hammers, screwdrivers, pliers, wrenches.
Part II: Care and handling of files, saws, chisels, planes, drills, punches. Cartoon.

2. ABC OF INTERNAL COMBUSTION (1948) — C VIII GenM
13 min.; color. **
Animated cartoon showing how air, fuel and ignition create power. Nature's forces at work in a volcano. How piston, connecting rod and crankshaft-harness similar man-created forces. Four-stroke cycle illustrated; valve operation, carburetion, ignition timing. Fields in which internal combustion engines work for man.

3. ABC OF POTTERY MAKING (1948) — A V 1
8 min. * — Bailey
How to make a clay bowl: coil method of pottery making. Correct technique in using templet pattern, hand tools, potter's wheel, etc. Close-ups and slow tempo used.

4. ABC OF PUPPET MAKING (1939) — A V 1
20 min. * — Bailey
Making a hand puppet from cardboard, cotton, and glue: forming the head, decorating, making costumes; built-up features using basic head, picture wire and papier mache. Building simple theatre and presentation of short play by children.

5. ABC OF THE AUTOMOBILE ENGINE, THE (1948) — C VIII GenM
18 min.; color. **
Component parts of automobile engine; how they operate. Function of carburetor, piston, piston rings and pins, connecting rods, crankshaft, valve mechanism, ignition, cooling, lubricating systems, other parts of modern automobile engine illustrated.

6. ABC OF THE DIESEL ENGINE (1950) — C VIII GenM
20 min.; color. **
Elementary principle of Diesel engine; contrast with gasoline engine. Details of structure and operation of Diesel engine, including compression, ignition, fuel injection system; efficiency of two-cycle principle; various uses of Diesels.

7. ABDOMINAL COLOSTOMY CLOSURE (PAUCHET METHOD) (PMF 5002) (1947) — A II 1 q USArmy-P
9 min.; color. **
Case of well functioning colostomy of double loop type located on left side in sigmoid colon; method used to accomplish closure; precautions.

8. ABDOMINO-PERINEAL RESECTION (No. 432) (1938) — A II 1q DG
22 min.; color; silent. **
Presentation of operation for carcinoma of the rectum. (Dr. Thomas E. Jones)

9. ABOUT FACES (1941) — A II 2
10 min.; also 35 mm. — USPHS
Semi-dramatic film on Danny Smith's teeth. How cared for; consequences of inadequate dental care.

10. ABRAHAM LINCOLN: A BACKGROUND STUDY (1951) — A IX 1 CORONET
16 min.; also color. *
Scenes associated with life and times of Abraham Lincoln; events leading to his election as President of the United States; American Civil War; his assassination; memorials to Lincoln.

11. ACCENT ON USE (1946) — A II 6
20 min.; also 35 mm. * — NFIP
Part played by physical therapy (heat, cold, light, water, electricity) in restoring patients (infantile paralysis) to health.

12. ACCIDENT BEHAVIOR (1950) — A II 7d
20 min. * — PROG
Step by step procedure to follow when involved in an automobile accident. Care of injured; hazards of fire; keeping accident from getting worse; legal responsibilities. All phases of accident behavior shown and discussed.

13. ACCORDING TO PLAN √ (1947) (Engineering Drawing Series) — D II McG-H
9 min.
Engineering drawing as common language coordinating work of many people on a single production project.

14. ACRES OF CHIX (1950) — D I-2
22 min.; color. ** — DeK
Processes in inbreeding and crossbreeding of poultry. Detailed presentation of results of research.

15. ACRES OF GOLD (1939) D I 1
21 min.; color. ** DeK
Development and processing of hybrid seed corn.

16. ACROSS-THE-LINE STARTERS (1944) (Electrical Work--Motor Control, 389) A VI 1 OE
15 min. *
Theory and operation of manually operated thermal overload switch; magnetically operated across-the-line starter; drum reversing switch for three-phase motor; magnetic reversing switch.

17. ACRYLIC JACKET CROWN CONSTRUCTION (MN--5371) (1948) A II 1 e 3 US Navy
42 min.; color.
Technique used in construction of acrylic resin jacket crown.

18. ACT YOUR AGE (Emotional Maturity) (1949) A VI 4 CORONET
13 min.; also color. *
Basic reasons for continuance of common "infantile reactions" into adolescence. Help in overcoming social handicaps related to inability to "grow up"; method of self-evaluation.

19. ACTING PROBLEMS (1951) (Drama Series) E III IntFB
11 min. *
Action in play on "Tom Sawyer" used to demonstrate means of achieving proper "feel" of character: improvisation, rhythm tempo and other terms explained.

20. ACTION OF BACTERIOPHAGE ON TYPHOID BACILLI A II 1c SAB
16 min.; silent. *
Photomicrographs of reaction of bacteriophage on nonmotile strain of typhoid bacilli made by sunlight dark-ground microscopy with varying magnification. Bacteriophage and typhoid culture, mixed. Various small light bodies visible interpreted as bacteriophage particles. Bacteriophage attaches to bacterial cells. Change in cytoplasm of cells. Some bacilli collapse. Various steps in bacteriophagy shown. (Dr. Adrianus Pijpher, South Africa)

21. ACTION OF STAPHYLOCOCCAL TOXIN ON RABBITS AND MICE, THE (1940) A II 1c SAB
7 min.; silent. *
Series of events following intravenous injection of staphylococcal toxin into rabbits and mice; lethal action of toxin. Necrotizing action of staphylococcal toxin demonstrated by showing reaction in skin of rabbit over period of time from 16 hours to 17 days. (Dr. John E. Blair)

22. ACTIVITY FOR SCHIZOPHRENIA: CORRECTIVE THERAPY TECHNIQUE (1950) A II 4d VETS
30 min.**
Corrective therapy methods, utilizing rationale stressing medically-prescribed, individualized physical activities in treatment of schizophrenia. Their effectiveness within framework of a total psychotherapy in treating patients inaccessible to conceptual and symbolic approach.

23. ACTIVITY GROUP THERAPY (1950) A II 4c COLUM
50 min. *
By means of concealed cameras and microphones, personality developments of group of emotionally disturbed boys are shown through series of sessions (treatments). (Material for psycho-morphological study of certain types of personality disorder.)

24. ADDING OR REMOVING REFRIGERANT (1944) (Refrigeration Service, 441) A VI 1 OE
17 min. *
How to check domestic refrigeration system for lack of refrigerant; add refrigerant by weight; add unmeasured amount of refrigerant; and remove refrigerant.

25. ADJUSTING AND CHECKING THE EXPANSION VALVE (1944) (Refrigeration Service, 444) A VI 1 OE
21 min. *
Design and operation of bellows type automatic expansion valve and diaphragm type automatic expansion valve; how to adjust, check and service bellows type valve.

26. ADJUSTING AND REPAIRING THE THERMO EXPANSION VALVE (1944) (Refrigeration Service, 448) A VI 1 OE
12 min. *
Theory of multiple refrigeration systems; how to test and adjust thermo expansion valve, how to recognize symptoms of trouble in valve, how to service valve.

27. ADJUSTING COMMERCIAL THERMOSTATIC CONTROLS (1944) (Refrigeration Service, 450) A VI 1 OE
12 min.*
Purpose of thermostatic motor control; how to test and adjust thermostatic motor control and adjust thermostatic valve.

28. ADJUSTING PRESSURE ACTUATED TEMPERATURE CONTROL DEVICES (1944) (Refrigeration Service, 449) A VI 1 OE
15 min.*
Purpose of pressure actuated temperature control devices; how to adjust pressure actuated motor control.

29. ADJUSTMENTS AFTER CHECK FLIGHT (1944) (Airplane Maintenance--Aircraft Maintenance, 261) A VI 1 OE
19 min.*

Some causes of nose-heaviness, tail-heaviness, yawing, torque tendency, rough propeller, ground looping; how to determine particular cause of trouble; how to make necessary adjustments.

30. ADVANCED OBEDIENCE INSTRUCTION (1946) (Training You to Train Your Dog Series) A V 2 UnitSp
27 min.; also color.
Training dogs for honors (CDX and UD); to carry, to reach for object, to retrieve; jumping; trailing.

31. ADVANCED TUMBLING (1945) (Tumbling Series, III) A V 2 CORONET
10 min.; also color.*
Fourteen stunts and combinations of advanced stunts grouped in a balance progression, backward somersault progression, and forward somersault progression. Safe teaching techniques stressed.

32. ADVANTAGES OF A-C WELDING (1947) A VI 1 WestH
20 min.; also color.**
How a-c equipment welds mild steel, cast iron, stainless steel, alloy steels.

33. ADVENTURES OF BUNNY RABBIT (1937) A IV 2 EBF
10 min.*
Story of a rabbit family, for small children.

34. AEDES AEGYPTI CONTROL (4-011.0) (1946) A II 3a CDC
18 min.**
How air travel has eliminated distance as effective barrier to dengue and yellow fever. Habitat and life cycle of A. aegypti mosquito, carrier of dengue and yellow fever. Proper methods of inspection and control. Work of spector, equipment and technique of inspe ons and reports; follow-up of inspector's report, duties of clean-up crews, maritime crews for boats. Emphasis on location and treatment of heavy foci.

35. AGE OF DISCOVERY: Spanish and Portuguese Explorations (1950) A IX 2 CORONET
10 min.; also color.*
Spanish and Portuguese explorations from Prince Henry the Navigator into period of conquistadores; geographical aspects of Spain and Portugal, trade routes; Seville as center of world commerce.

36. AGGLUTINATION OF LIVE TYPHOID BACILLI BY VI SERUM A II 1c SAB
10 min.; silent.*
Study of agglutination of live typhoid bacilli by Vi serum made with sunlight darkground photography employing various magnifications and light filters. Young bacilli with long spiral tails observed not to collide. Older bacilli occasionally show "fatigue." Effect of Vi serum. (Dr. Adrianus Pijpher, South Africa)

37. AGRICULTURE (1945) A VI 5 MAHNKE
11 min. *
Diversified farming explained. Some jobs farmer must know how to perform: care of farm equipment and animals, preparation of land and its protection against erosion. Educational qualifications needed. Assistance given farmers by county agent, etc. Where jobs for trained agriculturists exist.

38. AIM FOR SAFETY (1947) A II 7e AETNA
17 min.; color. **
Safety precautions which hunters should observe; proper equipment and clothing; care and handling of guns.

39. AIR ALL AROUND US (1948) C VIII YAF
10 min. *
Elementary science film presenting concepts of air pressure, contraction, expansion, compression.

40. AIR IN ACTION (1947) C VIII CORONET
10 min.; also color. *
Introduction to aerodynamics: resistance, Bernouli's law, etc.; applied to aviation.

41. AIR TRANSPORTATION (1947) A VI 5 MAHNKE
11 min. *
Work in commercial air line: reservations, sales, weather, flight crew, ground servicing, government licensed airport personnel. Qualifications for transportation jobs outlined. Jobs for women emphasized. Jobs on chartered and independent air lines.

42. AIRPLANE CHANGES OUR WORLD MAP (1942) B V 3 EBF
11 min.*
Evolution of world map concepts; map projection distortions: Mercator, Mollweide, Goode. Present-day map-making as influenced by modern air-transportation; effect on life and activities of people today of the shrinkage of time-distance values.

43. AIRPLANE MECHANIC, THE (1944) (Airplane Maintenance-Preventive Maintenance, 278) A VI 1 OE
9 min. *
Orientation film for beginning airplane mechanics; skills and knowledges required to make satisfactory inspections and repairs; importance of thoroughness, skill and dependability.

44. AIRWAYS OF THE FUTURE (1944) B V MTFF
12 min. *
How material and technical problems of establishing and maintaining global airways can be solved in full. Training and activities of Air Transport Command; peacetime significance

of this wartime development. Scenes of great peacetime airline point up problems and possibilities of United States expansion in the air of the future.

45. AI-YE (Mankind) (1950) B II
30 min. ; color. * BF
In form of voyage through tropical scenes, sequences suggest universal story of mankind everywhere: birth to childhood, adolescence, struggle, pain, old age, death, rebirth to action and struggle again. (Experimental. Without titles or narration story is accompanied by chanting and drumming of Osborne Smith, Negro composer.)

46. ALASKA: THE STORY OF A FRONTIER (1946) (The World Today Series) A IX 1 TwC-FF
19 min. *
History of Alaska, its agricultural and industrial development as a frontier territory; how pioneers, in settling new land, build communities and create new industries.

47. ALCOHOL AND THE HUMAN BODY (1949) C II EBF
14 min. *
Effects of ethyl alcohol on human body; effects on grain. Manufacture and characteristics of alcohol. Dramatized case of problem drinker.

48. ALEXANDER HAMILTON (1951) A IX 1 EBF
17 min. *
Hamilton, boy-businessman in West Indies; role in American Revolution; his part in adoption of Constitution; first Secretary of the Treasury; duel with Aaron Burr.

49. ALIGNING AND INSTALLING AUXILIARY MACHINERY (1943) (Shipbuilding-Marine Machinery Installation, 96) A VI 1 OE
17 min. *
How to lay out foundations for machinery installations; to establish centers of holes for drilling; to drill bolt holes in foundations to blueprint specifications; to align machines accurately on foundations; how auxiliary machine installations are checked.

50. ALIMENTARY TRACT √√ (1938) C II
11 min. * EBF
Action of esophagus, stomach, small intestine and colon in moving food and waste materials downward and through the body. Hypermotility, inhibition, hunger contractions; segmentation, peristalsis, antiperistalsis. Cinemicrography used to show actual absorbing movements of intestinal villi.

51. ALL FLESH IS GRASS (1950) D I 2
29 min.; also color.** AmNCat
Steps in production of beef animal from time calf is born until marketed as yearling. Value of native grasses in relation to cattle raising. Types of beef cattle (Angus, Brahma, Shorthorn, Hereford). Cattle round-up: branding, registering, vaccination, pasturing, grazing. Ranch work: irrigation, haying, fencing, corral building, spraying. Range management: year 'round tasks. Shipping procedures: salesyards, finishing and selling beef. Livestock production as big business; expenses involved in raising cattle on large scale. (Black and white version available for television).

52. ALL TOGETHER (1948) A I 5e
10 min. ARC
American Junior Red Cross activities; young American citizens at work in council meetings, on special projects, serving schools, communities and the nation as well as helping school children overseas.

53. ALLERGY (1935) A II 1f
35 min. ; silent. ** BR
Reel I: Anaphylaxis and allergy: phenomena of protein hypersensitivity. Allergy clinically manifested in form of asthma, hay fever, eczema, urticaria, angioneurotic edema, migraine, gastro-intestinal disturbances, and possibly other disease entities. Anaphylaxis in experimental animals demonstrated. Pathology of anaphylactic reaction illustrated by animation. Cellular theory.
Reel II: Anaphylaxis in guinea pig, rabbit, dog.
Reel III: Sensitization through feeding and inhalation. Demonstration of experimental asthma. Reproduction of spontaneous allergies in man. Prevalence of major allergies (asthma, hay fever, allergic eczema, or allergic urticaria); minor allergic manifestations. Search for the offending proteins: observation, best denatured diets, skin tests with various proteins. Two methods of skin testing demonstrated: (1) intracutaneous injection, and (2) scratch. Limitations of skin test cited. Treatments. Desensitization of hay fever sufferer: (1) "pre-seasonal" method; (2) "perennial" method.

54. ALLOY STEELS (1949) A VII
43 min. ; also 35 mm.** BETH
Processes in manufacture of alloy steels; more common uses.

55. AM I TRUSTWORTHY? (1950) A VI 2
10 min. ; also color.* CORONET
Trustworthiness--returning borrowed articles, keeping promises, doing good job with assigned tasks--as part of daily routine to build character.

56. AMERICA AND THE IMMIGRANT (1950) A IX 1 MTFF
17 min. *
What incoming people from diverse nations have contributed to the United States.

57. AMERICAN COWBOY, THE (1951) A IX 1
30 min. ; color.** FORD

How the modern American cowboy really lives, works, plays (Roberson Hereford Ranch, Gunnison, Colorado). Year 'round activities in beef cattle raising: roundup, branding, bunkhouse life, drive to summer pastures in Rockies; winter feeding in blizzards. Rodeo.

58. AMERICAN HORSE, THE (1942) C II
40 min.; color. U of C
Part I: Evolutionary development of horse, from three-toed eohippus to date, reconstructed from fossils.
Part II: Breeds of horses developed in America: Morgan standardbred, quarter horse, Tennessee walking horse. Their differentiating characteristics. Indian pony, California palomino, southwestern pinto. Racer, hunter, polo pony, hackney, harness, draft horses; cavalry mount, saddle horse, rodeo broncho, parade horse, presented.

59. AMERICAN MIRACLE, AN (1944) A VII
18 min.** GenM
How mass production in industry operates: intensive planning, engineering, machinery necessary to achieve balanced production line. How efficiently planned mass production eliminates "bottlenecks". Complete production and assembly lines in operation.

60. AMERICAN PORTRAIT (1940) A VII
25 min.** ILI
Retired life insurance salesman reminisces about improvements in American way of life over the past century (electric light replaces kerosene lamp, automobile replaces horse-drawn vehicle, etc.). Role salesmanship has played in bringing these improvements and others to public.

61. AMERICAN RODEO, THE (1950) A IX1
(Land of Opportunity Series) Repub
9 1/2 min.
How rodeo developed in the United States from origin in first public cowboy contest in Pecos, Texas, to present time.

62. AMERICAN SPOKEN HERE A IV 4
(1940) TFC-MGM
(Passing Parade Series)
10 min.*
A dramatized story of several slang expressions, showing origin and how they came to be included in the American idiom.

63. AMERICAN SQUARE DANCE (1947) E II
10 min.; also color.* CORONET
With orchestral accompaniment, experienced caller and narrator explain positions and teach such fundamental steps of American square dance as the swing, alemande, grand right and left, promenade, do-si-do.

64. AMERICAN TEACHER, THE A I 1
(1947) MTFF
15 min.*
United States citizen's responsibility for quality of education his community provides for young; pros and cons of "progressive education"; teachers' methods as individualistic; importance of developing in pupils ability to think as well as knowledge of facts. Advances in United States educational system typified in contrast between "the Little Red School House" and today's emphasis on scientific principles.

65. AMERICANS ALL (Tolerance) B VIII
(1945) MTFF
16 min.*
Issue of racial and religious intolerance presented in dramatic and objective manner. How forward-looking community can put into effect plan for combatting prejudice; how school and town can deal with causes of injustice.

66. AMOEBA (1948) C II
(Zoology Series) UWF-GB
10 min.
Microphotography and animated drawings show structure and life functions of single-celled organism. Production of pseudopodia; amoeba pursuing and capturing prey; process of ingestion; reproduction by fission explained by animated drawings.

67. AMPUTATION OF LOWER A II 1 q
EXTREMITY (PMF 5010) (1944) US Army-P
44 min.; color; silent.**
Detailed technique of amputation of lower extremity; operative and postoperative procedures.

68. AMPUTATION PROSTHESES A II 1 q
AND THEIR USE (PMF 5024, USArmy-P
-5) (1946)
27 and 36 min. **
Part I: Upper Extremity. Three phases of amputee problem explained: training for maintaining muscular coordination prior to fitting of prosthesis; earliest possible fitting of prosthesis; individual training on use. Making and fitting of prosthesis for below elbow amputation; for shoulder amputation.
Part II: Lower Extremity. Meticulous and painstaking care used by orthopedic mechanic in fitting for lower extremity. Importance of physical and occupational therapy.

69. ANATOMICAL MODELS (1937) E X
15 min. ** DenGep
Artist completes design for life-size dissectible torso and head model; step by step processes of making patterns and molds; casting, finishing, coloring. Completed model taken apart piece by piece; organs, systems and structures of human body described.

70. ANCIENT GREECE (1952) A IX 2
11 min.; also color.* CORONET
Surviving examples of culture of ancient Greeks used to illustrate their arts, games, contributions to philosophy, science, mathematics, and government.

71. ANCIENT ROME (1949) A IX 2
10 min.; also color.* CORONET
Roman achievements in government, architecture, engineering; influence of ancient Rome on modern world; Appian Way, Sacra Via, Forum, palaces of Palatine Hill.

72. ANCIENT WORLD INHERITANCE (1946) A IX 2
10 min.; also color.* CORONET
Museum tour illustrates our legacy from ancient civilizations; how money, the alphabet, the beginnings of modern industry found in "ancient world".

73. AND SO THEY LEARN (1946) A I 1
13 min.** GMILLS
Film record of day-by-day experiences in teacher-workshop and laboratory-school. Teachers in training shown how nutrition instruction can be integrated with elementary school subjects to teach children about food values in simple, effective way. Advantages of including community health workers in educational approach to better nutrition.

74. AND SO THEY LIVE (1940) A I 1
30 min.* NYFL
Effects of poverty of land on family in rural southern (U.S.A.) community; lack of proper diet, housing and sanitation. Need for better adaptation of school program to family necessities. How such adaptation affects family as its members are taught how to improve land, produce food for balanced diet, etc.

75. AND THEN ICE CREAM (1951) A II 4 C
(Pre-school Incidents, No. 1) Vassar
10 min.*
Children's meals. Episodes to elicit audience discussion of ways to handle children's attitudes toward food and toward adult intervention. (Key episodes repeated to facilitate discussion).

76. ANDREW CARNEGIE (1951) A IX 1
19 min.* EBF
Life of Carnegie: poverty-stricken Scottish youth becomes a builder of American industry; career from telegraph office worker to creator of great steel producing system; his many philanthropic activities.

77. ANDY'S ANIMAL ALPHABET (1950) C II
10 min.* MTFF
Little orangutan makes a tour of Bronx Zoo (for small children).

78. ANGEL OF MERCY (1939) A IX 1
10 min.* TFC-MGM
Biography of Clara Barton, beginning with her organization of women to serve in Civil War field hospitals, to her ultimate success in organizing the American Red Cross as part of the International organization.

79. ANGLES √√(1945) C VII 3
(Practical Geometry Series) KB
12 min. *
Types of angles; relationship to each other.

80. ANGLES AND ARCS IN CIRCLES √√ (1948) C VII 3
(Practical Geometry Series) KB
12 min.*
Measurement of central angles, arcs, inscribed angles and angles formed by two chords; theorems and proofs introduced and demonstrated.

81. ANGRY BOY (1951) A II 4 c
(Emotions of Every Day Living Series) MHFB
32 min. **
Dramatized story of boy caught stealing in school, sent to child guidance clinic where it is revealed he is suffering from emotional disturbance which is traced to causes. The boy is guided toward recovery (modern psychiatry in action).

82. ANIMAL LIFE √/ (1934) C II
11 min.* EBF
Animals classified from lowest invertebrate to highest vertebrate; their common functions (food intake, digestion, waste disposal, reproduction, growth, irritability, locomotion); various animals depicted in native habitats; their peculiarities. How nervous system and brain influence action in higher animals.

83. ANIMAL LIFE IN THE ANTARCTIC C II
IO-R
27 min.; monochrome; silent.*
Animals of south polar regions: Weddell seals at breeding grounds near Little America; their young from time of birth, through nursing period, to first swim and beginning of independent life. Southern forms of animal life, microorganisms from polar mountains seen through microscope at Little America Laboratory. Crustaceans from Bay of Whales. Emperor penguins.

84. ANIMALS GROWING UP (1949) C II
11 min.* EBF
Growth and development of representative baby animals during first few weeks of life: litter of puppies; new-born calf; baby chicks. How mother animal cares for young. Physical changes in young at intervals of days and weeks.

85. ANIMALS IN WINTER (1950) C II
11 min.* EBF
How certain animals adapt to exigencies of winter: badger, woodchuck, chipmunk, caterpillar, owl, rabbit, bluejay, porcupine, bobcat, and fox, in natural settings.

86. ANIMALS OF THE FARM (1947) D I 2
10 min.; also color.* MAHNKE
Physical appearance and habits of common farm animals.

87. ANIMULES (1951) A V 1
11 min.; color.* IntFB

Children aged 11-14 years shown creating their own imaginary animals out of wire, paper, paste, paint and gay trimmings.

88. ANNELIDA — C II
45 min.; color; silent. * — IO-R
Reel I: Unusual annelid, Echiurus. Mobile proboscis and method of feeding: slime web spun, plankton caught and engulfed with web. Common laboratory form, Nereis, External features shown in close view. Full-frame front view of prostomium being everted; large jaws and denticles lining mouth. Burrowing and feeding activities.
Reel II: Close-up details of nereis limbata, nephthys, diopatra, chaetopterus and associated pinnixia.
Reel III: Nereids, terebellids, sabellids, and serpulids.

89. ANOMALIES OF THE BILE DUCTS--BLOOD VESSELS AND STRICTURES OF THE COMMON DUCT (1947) — A II 1q ETHICON
25 min.; color; silent. **
Etiology of strictures of the common duct: factors responsible for accidents (carelessness, haste, anomalies, insufficient knowledge of anatomy and inaccurate control of hemorrhage). Other causes of strictures: diffuse sclerosing pancreatitis, abscess about duct, ulceration of wall by stone and suppurative cholangitis. How strictures may be prevented. Manifestations of stricture of common duct; types of strictures. Repair of local strictures. Anastomosis of common duct to duodenum. Use of the Rouxy arm of jejunum, of metal tubes and rubber catheter; use of loop of jejunum. Congenital atresias. (Dr. Warren H. Cole)

90. ANOPHELES CENSUS √ (4-025) (1944) — A II 3a CDC
20 min. **
Basic local entomological field procedures. for anopheles mosquito census. Initiation and technique of control program.

91. ANOTHER TO CONQUER (1941) — A II 1 p NatTbA
22 min.; also 35 mm. **
High incidence of tuberculosis in Navajo Indian family; process of infection, methods of cure of tuberculosis.

92. ANSWERING THE CHILD'S WHY (1951) — A II 4 c EBF
(Personality Development Series)
14 min. *
When child begins to ask questions; effects of positive or negative attitudes on child's personality.

93. ANTERIOR ARM AND FOREARM (1941) — A II 1 a BURKE
(Surgical Anatomy Series)
15 min.; color; silent. *
Dissection from shoulder to wrist; insertion of muscles, location and relation of veins and arteries, action of nerves on hands and fingers. Examples of deformities, clawhand, wrist-drop, resulting from injury to ulnar and radial nerves. Dissection on unembalmed cadavers shows natural color and condition of tissues involved.

94. ANTERIOR WRIST AND HAND (1941) — A II 1 a BURKE
(Surgical Anatomy Series)
15 min.; color; silent. *
Layer by layer dissection of hand and fingers; position and relation of muscles, nerves, arteries, and veins. Action of each muscle. Dissection on unembalmed cadavers shows natural color and condition of tissues involved.

95. ANTS (1948) — C II EBF
11 min. *
Activities of four different types of ants: mound builder, black, household, and carpenter. Life cycle of carpenter ant; intercolony battle between mound builder and wood ants.

96. APACHE INDIAN (1943) — A IX 1 CORONET
10 min.; also color. *
Apache ceremonies; tribal functions. Horsemanship demonstrated.

97. APHIDS (1933) — C II EBF
11 min. *
Characteristics and life cycle of plant louse. Cinemicrography shows egg-laying, feeding, wing-development. How other insects destroy aphids.

98. APPLES (1949) — D I 1 AAppleS
32 min.; color. **
Recreated scenes of colonial life in Virginia. Use of apples in the state, over the years. Apple culture methods. Cleft-and bud-grafting demonstrated. Proper spraying for insect and disease control; pruning. Pruned material and nitrate fertilizer used to condition soil. High speed photography used to show opening of leaves and buds; falling of blossoms and first appearance of fruit. Thinning young fruit; picking. How apples are cleaned, graded, polished and packaged.

99. APPLES (1950) — D I 1 EBF
11 min.; color. *
Major steps in apple growing and packing. Modern methods of horticulture: use of helicopters in dusting; natural and artificial methods of pollination; care of trees in all stages of growth. Packing operations: washing, sorting, inspecting, wrapping and packaging.

100. APPROACH TO UNDERSTANDING DYNAMICS, AN (1949) — A II 4d VETS
(Psychotherapeutic Interviewing Series)
27 min. **

Dynamics of interview between patient and psychiatrist analyzed. Pattern shown of patient's reactions to certain experiences; how he has dealt with them. How what patient does and says furnish clews to psychodynamics and mechanisms necessary for understanding patient. Selected significant episodes of patient's behavior. Terms in which psychiatrist may think about dynamics. Interpretation suggested of feelings expressed by patient; hypotheses developed for verification before use in treatment.

101. APPROVED BY THE UNDERWRITERS (1942) — A IX 1 — NaBFUn
22 min. **
How safety standards and testing methods of Underwriters' Laboratories, Incorporated, are applied to heating, electrical, and mechanical equipment, to make sure that products marked "approved by the Underwriters" will not cause fire, injury, or shock because of defect.

102. APTITUDES AND OCCUPATIONS (1941) — A VI 5 — CORONET
15 min. ; color. *
Six basic aptitudes (mechanical, clerical, social, musical, artistic, and scholastic) analyzed and illustrated; how to apply knowledge of them toward an intelligent choice of vocation.

103. ARACHNIDS (1949) — C II
(Zoology Series) — UWF
10 min. *
Life cycle of spiders and scorpions: body structure, habitats and special adaptations studied by observing garden spider, water spider, raft spider. Spinning webs, food-getting, coition, spinning cocoons. Relatives of spiders: king crab, scorpions, harvestmen, mite, tick.

104. ARC WELDING STAINLESS STEEL (1943) — A VI 1 — AlleLud
21 min. ; color. **
Qualities of stainless steel: resists corrosion and may be welded. Differences in welding plain steel and stainless steel. Types of stainless steel; composition of one type shown. Mechanical or physical strength and resistance to corrosion as requirements of good weld; zone of fusion; effects of over-heating (carbides). Setting up equipment and materials for welding: preparing edges, setting chill bars, welding, removing excess beads, brushing. Types of edges for different types of work. Selection of welding rod. Teams of two. Welding heavy material. Method of forming four beads to complete weld. Multiple bead weld. Testing weld for tensile strength, yield point, ductility; for corrosion.

105. ARCH AGAINST THE SKY (1951) — D I 1
20 min. ** — STRAN
Advantage of forced unheated air drying of modern hybrid corn to preserve high yields. Erection of arch-type corn-drying and storage building; how air is forced through corn by fans.

106. ARCHERY FOR BEGINNERS (1944) — A V 2 — UWF
10 min. *
Survey film to arouse interest. Shooting form of left and right-handed champions analyzed; equipment, stance, nocking, aiming, draw and release. Close-ups of finger and arm action.

107. ARCHERY FOR GIRLS (1948-9) — A V 2 — CORONET
10 min. ; also color. *
Fundamental techniques demonstated: stance, nocking, draw, aim, loose; practice required.

108. ARCHITECTURE WEST (1950) — E 1
20 min. ; also color. — AL-MO
Review of architecture in western United States during past century: square log blockhouses at Yam Hill, Oregon; first of Monterey style houses; examples of imported influences culminating in highly ornamented Victorian mansion, circa 1880. First Church of Christ, Scientist, Berkeley, and modern residences designed by Bernard Mayback, Frank Lloyd Wright, Richard Neutra, John Yeon. Post-war office buildings; Prudential Building in Los Angeles, designed by Wurdeman and Becket (utilization of lightweight aggregates); Equitable Building in Portland, by Pietro Belluschi.

109. ARCHIVES, THE (1940) (Washington Parade Series) — A I 2 — TFC-Columbia
10 min. *
Approach to National Archives Building in Washington; various rooms in building; their uses (search room, reconditioning, photostating, etc.). Close-ups of originals of important American documents (Emancipation Proclamation and Bill of Rights).

110. ARE YOU A GOOD CITIZEN? (1948-9) — A VIII — CORONET
10 min. ; also color. *
Mr. Heineman has just been chosen to preside over "Citizenship Day" celebration; why he is considered a good citizen; check-list of good citizenship essentials; role of democratic institutions in American way of life.

111. ARE YOU POPULAR? (1946-7) — A VI 4 — CORONET
10 min. ; also color. *
Dramatized story of teen-age students analyzes qualities which make for popularity. Objective group guidance in personal and social behaviour.
D VII 3

112. ARE YOU READY FOR MARRIAGE? (1950) — A VI 4 — CORONET
15 min. *
Church marriage counselor assists young couple in discovering what it takes to be "ready for marriage."

113. AREAS√/(1948) C VII 3
(Practical Geometry Series) KB
12 min. *
How to compute areas of rectangles, parallelograms, triangles, circles. Fundamental principles in computation; relationship of figures and of formulas.

114. AROUND THE CORNER (1937) A VI 1
10 min. JamH
Operation of automobile differential. How wagon wheels travel at different speeds, each turning freely on axle; early automobiles operating same way, encountered difficulty solved by differential.

115. ARRANGING THE BUFFET SUPPER (1946) A VI 4
InstF
5 min.; also color. *
School teacher and student show how to set buffet supper table correctly. How buffet supper may be given simply; suitable easy menu suggested. Problems of etiquette involved.

116. ARRANGING THE TEA TABLE (1946) A VI 4
InstF
5 min.; also color. *
School teacher and student illustrate how to set tea table; appropriate food to serve at afternoon tea.

117. ART IN HAITI (1951) E VIII
10 min. STATE
Establishment of Art Center in Haiti through interest of American teacher and Haitian artist, where artists study and display their work; Center's assistance to promising students; exhibition of Haitian "Primitives" included.

118. ART OF REAMING, THE (1949) A VII
48 min. ** CleTD
Types of reamers and their proper use in machine shop: standard producing reamers, shell bridge and car, core drill, counterbore, carbide tipped, adjustable hand, taper pin, and special reamers. Detail of special type combination drill and reamer. How to wrap and store reamers.

119. ARTERIAL DISORDERS IN THE UPPER EXTREMITY AND THEIR TREATMENT BY SYMPATHECTOMY (PMF 5103) (1950) A II 1 q
USArmy-P
30 min.; color. **
Indications, clinical factors, operative findings and precautions.

120. ARTERIES OF LIFE (1948) D I 5
(Living Earth Series) EBF
10 min.; color. *
Importance of water; water cycle; water table. Relation of forests to water distribution.

121. ARTERIES OF NEW YORK√/√(1941) A IX 1
11 min. * EBF
Factors influencing development of city's transportation system; New York's facilities analyzed. Planning required. Distribution of residential and business districts; daily flow of people; types of transportation facilities; roles of highways, bridges, tunnels. Police regulation.

122. ARTERIOVENOUS FISTULA (POSTERIOR TIBIAL VESSELS) (PMF 5094) (1948) A II 1 q
USArmy-P
18 min.; color. **
Preoperative situation; surgical technique; postoperative findings; indicated precautions.

123. ARTERIOVENOUS FISTULA WITH FALSE SACS LOWER FEMORAL VESSELS QUADRUPLE LIGATION AND EXCISION (PMF 5093) (1948) A II 1 q
USArmy-P
15 min.; color. **
Essential phases of diagnosis; best conditions for preoperative studies; details of surgical procedure.

124. ARTHROPODA C II
30 min.; color; silent. * IO-R
Reel I: Crustacea from the Gulf of Mexico and coast of Maine. Colony of barnacles in action, followed by high magnifications of cirri. Several specimens shed interguments. Large individuals dredged from deep water. Skeleton shrimp: protective blending of form and color with algal background, peculiar structure. Prawns and lobster decapod, structure and activity. How hermit crabs protect themselves. Reel II: Crustacea from the Gulf Coast of Florida. Crabs. Hermit crabs in their appropriated mollusk shells; surmounted by oysters, barnacles, bryozoans, and hydroids. Concealment within sponges. Spider crabs, decorated with algae, hydroids, and sand grains. Ghost crabs; stone crabs.

125. ARTHROPOD-BORNE VIRUS ENCEPHALITIDES (PMF 5048) (1947) A II 1 r
USArmy-P
33 min. **
Differential diagnostic measures; diagnosis, treatment, and control of Japanese B encephalitis; proper approach to investigation of problem.

126. ARTURO TOSCANINI (1944) E VII
29 min. STATE
Toscanini conducts NBC Symphony orchestra, with Jan Peerce, soloist, and Westminster Choir, in special program recognizing Italy's liberation from Fascist oppression, featuring overture to Verdi's "The Force of Destiny" and "The Hymn of the Nations." Toscanini at home; his political record; other Italians who fled Italy under Mussolini, engaged in research, teaching, journalism, etc., in the United States.

127. ARYTENOIDECTOMY--OPEN APPROACH FOR BILATERAL ABDUCTOR PARALYSIS (1949) A II 1q SturG
16 min.; color. *
An operative technique for repair of bilateral abductor paralysis of larynx. Direct recording interprets patient's voice and respiratory difficulty. Mirror view of larynx showing position of vocal cords in adduction, on inspiration and phonation. Operation shown; stress on author's technic of exposure of arytenoid. Direct sound recordings of patient's voice and mirror view of larynx postoperatively. (Dr. DeGraaf Woodman)

128. AS THE CROW FLIES (1950) D II
21 min. ** GAR-D
Pipe line construction: trenching, rock drilling, blasting, welding, doping, wrapping, laying, backfilling. Actual construction work on 172-mile, 22" natural gas line which serves Oak Ridge, Tennessee. Rock drilling technique.

129. ASCARIASIS (INFESTATION WITH ASCARIDS) (PMF 5124) (1949) A II 1 s USArmy-P
13 min. **
Details of life cycle of ascarids in swine. Reference to many other species.

129 1/2. ASIATIC SCHISTOSOMIASIS (MN--5028) (1946) A II 1 d US Navy
23 min.; color.
Cause and effects of schistosomiasis; prevention and control measures. Life cycle of the infectious body.

130. ASSEMBLING IN A JIG--FITTING AND LINING UP (1944) A VI 1 OE
(Sheet Metal Work--Assembling and Riveting--136)
16 min. *
How aircraft sheet metal parts are assembled in precision assembly jig; how to use awl for lining up; to use skin fastners; to correct misaligned holes.

131. ASSEMBLING IN A JIG--DRILLING AND RIVETING (1944) A VI 1 OE
(Sheet Metal Work--Assembling and Riveting--137)
21 min. *
Procedure for drilling, burring, dimpling, and riveting aircraft sheet metal assembly.

132. ASSIGNMENT: TOMORROW (1945) A I 1
15 min. ** NatEdA
Relationship of teacher to pupils and teaching profession; qualifications and responsibilities of teacher; importance of high professional standards, legislative provisions for schools, suitable salary levels, relationships between school and community.

133. AT LAND (1944) E II
14 min.; silent. * MayaD
Philosophical concept, expressed through dance, of relationship of individual identity to surrounding universe.

134. AT OUR HOUSE (1951) A II 1 p
9 min. * COLUM
Experience of one family with multiple screening project: tests given; how unsuspected disease and disability may be discovered and referred to family physician.

135. AT YOUR COMMAND (1944) A IX 1
22 min. ** ETHYL
Importance of farmer to nation; help available to him in new knowledge, new labor-saving devices, and especially in assistance extended by government agencies and industry. Accomplishments of American farmer from 1787 to date. How the United States Department of Agriculture works (agricultural research stations, county agents, etc.). Development of farm implements.

136. ATMOSPHERE AND ITS CIRCULATION √√ (1945) C VIII EBF
(General Science Series)
11 min. *
Distribution of air over earth; composition of atmosphere; pressure and temperature at various altitudes. How sun's rays heat earth's surface unevenly; causes of air movement. Role of atmospheric circulation in creating air pressure zones: weather and climate.

137. ATOMIC ENERGY √√ (1947) C VIII
11 min. * EBF
Animated drawings used to explain basic concepts. Parts and structure of atom. Electronic energy contrasted with nuclear energy. Natural radioactivity, nuclear synthesis, nuclear fission. Atomic energy from sun, chemical energy stored; photosynthesis and combustion.

138. ATOMIC PHYSICS √ (1947) C VIII
100 min. * UWF--GB
Part I, 1 reel: The Atomic Theory: as proposed by John Dalton in 1808; progress in nineteenth century: Faraday's early experiments in electrolysis, Mendeleeff's Periodic Table. Ideas of the size of molecules and atoms then current.
Part II, 2 reels: Rays from Atoms: how cathode rays were investigated; the electron discovered; positive rays found, their nature established; X-rays found, quickly put to use. Work of Sir Joseph Thomson.
Part III, 2 reels: The Nuclear Structure of the Atom: early work of Becquerel and the Curies on radio-activity; Lord Rutherford's work in this field; his theory of the nuclear structure of the Atom. H. G. Moseley's support of this theory shown by animated diagram.
Part IV, 2 reels: Atom Smashing: The Discovery of the Neutron. Research tools of nuclear physics described; extraordinary machines now used to bombard atoms shown.

Work of Joliot Curies and Sir James Chadwick in discovery of neutron, explained, its importance driven home. Splitting of the lithium atom by Cockcroft and Walton in 1932 discussed; speech by Einstein explains how their work illustrated his theory of the equivalence of mass and energy.
Part V, 3 reels: Uranium Fission: Atomic Energy. Events of recent times leading up to discovery of uranium fission brought in; principal facts of uranium fission explained in detail. Speech by Professor Frisch. The atomic bomb; great plants in America where the bomb was made; ruins of Hiroshima. Present-day research into peaceful uses of atomic energy; prospects discussed by Einstein and Cockcroft, head of British Project for Research on Atomic Energy. Recapitulation; the future, promising so much if peace remains unbroken.

139. ATOMIC POWER (1947) C VIII
19 min. * MTFF
Story of atomic bomb, from 1905 when Einstein defined relation between matter and energy, reenacted with Fermi, Einstein, Conant, Oppenheimer and others recreating on screen secret roles they played during war. Processes that led to atomic age depicted; how same men are now playing determined role in establishing that force they liberated shall be utilized for good of mankind.

140. ATTACHING AND ALIGNING WINGS (1944) A VI 1 OE
(Airplane Maintenance--Aircraft Maintenance--258)
20 min. *
How to inspect and remove damaged wing; attach new wing; level airplane and align wing; complete installation; inspect finished job.

141. ATTITUDES AND HEALTH (1948) A II 4c CORONET
10 min.; also color. *
Dramatized story of two girls who are failing to achieve their ambitions. They learn that wrong attitudes prevent individual from doing his best; may even cause physical illness; that achievements and failures have meaning only in perspective; and self-confidence and right attitudes are vital to good health.

142. AUSTRALORBIS GLABRATUS, VECTOR OF SCHISTOSOMA MANSONI (4-066) (1947) A II 1r CDC
3 min.; silent. **
Planorbid snails, principal intermediate hosts of S. mansoni wherever worm occurs. In tropical America A. glabratus is principal transmitting species. A. glabratus can readily be handled in aquarium for observation or experimental purposes. Aquarium scenes illustrate life cycle of this species from egg masses to adult snails.

143. AUTOMOTIVE SERVICE (1940) A VI 5
11 min. * MAHNKE
Basic jobs in automotive field: valve grinding, wheel alignment, body repair, electrical system, brake servicing, etc. Qualifications and training required.

144. AUTUMN ON THE FARM (1948) D I 3
11 min.; color. * EBF
Two farm children observe changes in plant and animal life during autumn, become interested in apple and corn harvesting, grape picking, nut gathering, hibernation of animals, migration of wild ducks.

145. AUXILIARY VIEWS (1948) D II
(Mechanical Drawing Series) McG-H
20 min.
I--Auxiliary projection defined and illustrated in step-by-step construction of an auxiliary view.
II--Auxiliary elevations, right and left auxiliaries, front and rear auxiliaries described.

146. AUXILIARY VIEWS: DOUBLE AUXILIARIES (1947) D II McG-H
(Engineering Drawing Series)
15 min.
Theory of double auxiliary or oblique view described; step by step drawing of object with oblique face.

147. AUXILIARY VIEWS: SINGLE AUXILIARIES (1947) D II McG-H
(Engineering Drawing Series)
23 min.
Auxiliary projection defined and explained; types of single auxiliaries.

148. AVALANCHES TO ORDER (1950) A V 2 USDA
17 min.; also color.**
How United States Government Forest Service snow rangers, National Ski Patrol and Winter Sports Association work together to predict and control avalanches. Importance of skiers in National Forest ski areas doing their part in obeying avalanche warning signs.

149. AXEMANSHIP (1945) A V 1
11 min.* BSA
Proper use and care of axe demonstrated; double bit featured.

B

150. BABIES, BATHS AND BUBBLES (1940) A II 1 1 NYH
8 min.; also 35mm.; and silent.**
Department nurses instruct other nurses and mothers how to bathe infant. Adaptation of methods to varied home conditions.

151. BABY ANIMALS (1948) C II
10 min.* YAF
Elementary science film introducing concepts of degree and nature of parental care, resem-

blance of young to parents, general birth and growth patterns, as evidenced by the young of well known animal species.

152. BABY MEETS HIS PARENTS (1948) A II 4c EBF
(Personality Development Series)
11 min.*
Differences in personality accountable for by heredity, human relationship, environmental factors during first years of life. Shows how infant personality is influenced by degree of fulfillment of basic needs for food, elimination, loving care.

153. BABY'S DAY AT FORTY-EIGHT WEEKS (1934) A II 1 1 EBF
10 min.*
Infant care at forty-eight weeks: bathing, feeding, playing, sleeping. Importance of cod liver oil and orange juice in diet; necessity of regular elimination. Psychological and educational implications of infant's everyday experiences.

154. BABY'S DAY AT TWELVE WEEKS (1934) A II 1 1 EBF
10 min.*
Infant care at twelve weeks: one day's routine from waking to final breast feeding; bathing, feeding, playing, daytime sleeping.

155. BABY'S FIRST YEAR (1938) A II 1 1
12 min.* KB
Care of expectant mother: value of trained nurse, proper foods and exercises. Importance of cleanliness in baby's clothes, food, etc. Baby's schedule including breast feeding, bathing and sleep. Protection of baby from contagion by adults explained.

156. BACK OF EVERY PROMISE.... (1948) A VII CINBTC
30 min.**
Dramatized story to visualize what banking does for industry and individuals. Commercial banking and correspondent banking system. How many necessities of life are brought from the soil, mines, forests, factories to consumer through banking operations.

157. BACK TO LIFE (1948) A II 5
6 min.; color.** AETNA
Proper method of administering artificial respiration dramatically illustrated: preparation of patient, proper position of operator, placement of hands, movement of compression and release; how to change operations without loss of essential rhythm.

158. BADMINTON FUNDAMENTALS (1950) A V 2 CORONET
10 min.; also color.*
Fundamental skills and rules of badminton demonstrated by both expert and novice players (slow-motion sequences and animation).

159. BAKING INDUSTRY, THE (1946) A VI 5 MAHNKE
11 min.*
Jobs in large commercial bakery; in small retail bakery: mixer, scaler, divider, panner, oven loader and dumper, etc. Technical jobs: chemists, bacteriologists, foremen, production managers. How and when training for these jobs can be obtained.

160. BALANTIDIUM COLI AND ENDAMOEBA HISTOLYTICA FROM BOWEL OF PATIENT (1947) A II 1c SAB
4 min.; silent.*
Dark-field preparation of Balantidium coli calling attention to movement by cilia and funnel shaped mouth. Dark-field preparation of Endamoeba histolytica emphasizing clear ectoplasm of pseudopodia and free movement of ingested red blood cells. (Dr. Adrianus Pijpher, South Africa)

161. BALL-HANDLING IN BASKETBALL (1946) A V 2 EBF
11 min.*
Approved methods of holding, catching, passing. Importance of relaxation, rhythm, balance. Correct stance, grip, fingertip control, one-handed pass, hook pass demonstrated. Slow-and stop-motion photography used.

162. BALL HANDLING IN FOOTBALL (1946) A V 2 EBF
11 min.*
Receiver stance, position of hands, analyzed; importance of keeping eyes on ball. Fundamentals of catching pass from center, punts and long passes; of handling ball in close and spinner plays; of shifting ball in running. Slow-motion, stop-motion and close-up photography used.

163. BALLAD OF THE WEST (1952) A IX 1
11 min.* EBF
"The Chisholm Trail" and other cowboy songs: cowboy's longing to have his own herd and brand, and be his own boss.

164. BANKS AND CREDIT (1948) A VII
10 min.; also color.* CORONET
Essential part commercial bank plays in economic life of community; important role credit plays in economic system.

165. BAR WORK--MAGNESIUM√ (1944) A VI 1 OE
(Machine Shop Work--Turret Lathe --216, 217, 218)
18, 17, 23 min.*
Part I. Setting Up Bar Mechanism and Roller Turner.--How to make rough sizing cut for roller turner; to set tool in roller turner for finish size; to set automatic stops; to control chip condition.
Part II. Setting Up Multiple Roller Turner and Turning a Taper.--How to set up multiple

roller turner; to center-drill work so that it can be supported with center; how to set up and operate carriage taper attachment.
Part III. Necking and Threading by Use of Attachment and by Die Head. --How to set necking and chamfering tools; to cut 3/4", 10-pitch thread with tangent die head; how to cut off finished piece.

166. BASEBALL TODAY (1949-50) A V 2
26 min. ; also color. OFF
Play situations (baseball) demonstrating proper pitching procedure: rights and limitations of catcher, basemen, fielders, batter, runner and coaches. Correct rulings on the balk, interference by catcher, batter, runner, fielder, batter, runner and infield flies.

167. BASIC CAMERA, THE A VI 1
(MN5383) (1948) USNavy
(Fundamentals of Photography)
15 min.
History of the camera; kinds of cameras; body, lens, shutter, image screen explained; use of film holder; roll film. Commercial cameras: how they operate. This film is one in a series on photography which covers elementary optics in photography, light-sensitive materials, techniques of developing negative, etc.

168. BASIC COURT PROCEDURES A IX 1
(1949) CORONET
13 min. ; also color. *
Two high school students learn function of courts from practicing lawyer; definition of legal terms; roles of various courtroom figures. Dual purpose of courts in United States; place of the judicial system in a democracy.

169. BASIC ELECTRICITY (1946) C VIII
22 min. ; color. ** Min-HR
Fundamental terms and theory of electricity; terms; how volt, ohm, watt behavior (cartoon).

170. BASIC ELECTRONICS (1946) C VIII
22 min. ; color. ** Min-HR
Fundamental terms and theory of electronics (cartoon).

171. BASIC FIBERS IN CLOTH A III 2
(1948) CORONET
(Textile Series, II)
10 min. ; also color. *
Basic fibers and filaments magnified for study; qualities of finished cloth determined or conditioned by them.

172. BASIC HYDRAULICS C. VIII
(MN 5027 a) (1945) USNavy
10 min. ; color.
Basic principles of hydraulics. Hydraulic power, controlled power. Pascal's law. Hydraulic system: pump, pipe, cylinder. Mechanical advantage of fluids; direct and inverse ratios between small pump and large cylinder. Continuous supply pump shown; operation illustrated. Two-way type cylinder; selector and release valves. Power pump; value of auxiliary hand pump. Aircraft hydraulic system explained. Use of hydraulics in industry, automobiles, aircraft, etc.
One of several films and filmstrips on aviation hydraulics.

173. BASIC MACHINES--THE DRILL PRESS (1944) A VI 1 OE
(Machine Shop Work--Basic Machines--71)
10 min. *
Drill press used to produce round holes in metal; principal steps in operating drill press; identifies parts of drill press, their functions; different types of drill presses.

174. BASIC MACHINES--THE LATHE (1944) A VI 1 OE
(Machine Shop Work--Basic Machines--68)
15 min. *
Lathe used to shape cylindrical work; how workpiece is supported between centers; power applied to rotate workpiece; how spindle speed, position of cutting tool, and rate of feed may be varied to fit job.

175. BASIC MACHINES--THE MILLING MACHINE (1944) A VI 1 OE
(Machine Shop Work--Basic Machines--69)
15 min. *
Milling machine used with formed cutters to cut infinite variety of shapes in metal; how cutter is supported on arbor; power applied to rotate cutter; workpiece fed to cutter; how spindle speed, position of workpiece, and rate of feed may be varied to fit job.

176. BASIC MACHINES--THE SHAPER (1944) A VI 1 OE
(Machine Shop Work--Basic Machines--70)
15 min. *
Shaper used to produce flat surfaces on metal; how cutting tool is mounted and positioned; workpiece mounted; length of stroke, cutting speed, and table feed adjusted to fit job.

177. BASIC NET MENDING D III
(No. 4) (1949) F&WS
16 min. ; color. **
Basic procedures and equipment used in mending fish net.

178. BASIC OBEDIENCE A V 2
(1946) (Training You to Train Your Dog Series) UnitSp
32 min. ; also color.
Teaching the dog heeling, lie-down, stay-down, the stand, drop on recall, stick jumping; the sit, stay-sit, etc. (Companion Dog title).

179. BASIC PRINCIPLES OF LUBRICATION (1944) — A VI 1 GenM
25 min. **
Important functions of lubrication (motorized equipment): to reduce friction in order to increase efficiency; to cool moving parts and internal surfaces; to keep power in cylinder; to prevent contamination and deterioration of engine parts. Hundreds of parts in vehicles need protecting film of oil; how outer layers of tiny oil globules adhere to metal surfaces and inner layers act as minute ball bearings. How lubricating oils differ in viscosity; choice determined by weather and temperature. Oil chosen must be right for specified operating condition as shown on lubricating guides set up for each type of vehicle.

180. BASIC PRINCIPLES OF THE ANALYTICAL BALANCE (M12) √ (1951) — C VIII CDC
19 min. **
Structure and theory of analytical balance; use in measurement of minute quantities of matter to nearest 1/1000 gram. Procedures, theory, observations, calculations necessary to find zero point of balance, find sensitivity of balance, calibrate weights, weigh an object, weigh out predetermined amount of material.

181. BASIC T FORMATION (1947) — A V 2 GF
10 min.; also color. *
The Chicago Bears, the Chicago Cardinals and the Los Angeles Rams (professional football teams) in plays, especially running plays, proven effective in actual league competition. Fundamentals (handoffs, pitchouts, etc.). Each selected play is diagrammed, explained and run in actual major league game against Green Bay Packers. For use in coaching squads.

182. BASKETBALL FOR GIRLS (Fundamental Techniques) (1948) — A V 2 CORONET
10 min. *
Fundamental techniques of ball handling, passing, and shooting, demonstrated (slow motion photography). Value of practice and importance of individual skill to team success, stressed.

183. BASKETBALL FOR GIRLS (Game Play) (1948) — A V 2 CORONET
10 min. *
Finer points of the sport demonstrated; individual player techniques in offense and defense.

184. BASKETBALL FUNDAMENTALS (1942) — A V 2 CORONET
15 min. *
Shooting, passing, dribbling, defensive and offensive footwork. Drill in fundamentals stressed, to assure confidence and achieve success.

185. BASKETBALL TODAY (1948) — A V 2 OFF
26 min.
Demonstrations by skilled high school and university players and Olympic basketball champions; plays analyzed in slow motion; interpretation on center jump action; free-throw positions and violations; throw-in after goal; substitutions; ball out-of-bounds; personal fouls on player with and without ball; rights and limitations during dribble, pivot and feint.

186. BATHING THE PATIENT (1944) (Nursing Home Care--403) — A II 1 OE
24 min. *
Preparation of equipment; how to bathe arms, legs, body; to give back massage and alcohol rub; how to brush patient's teeth and shave him.

187. BATHING TIME FOR BABY (1946) — A II 1 1 J&J
13 min.; color. **
Technique of table-tub bath demonstrated step by step in a Disney cartoon featuring Dr. Stork.

188. BATTERY, IGNITION, AND ELECTRICAL SYSTEM, THE (1944) (Automobile Operation and Maintenance --462) — A VI 1 OE
26 min. *
How to check and service battery; check starting motor and the generator; lighting circuit, electrical instruments; how to check and test ignition system.

189. BATTING FUNDAMENTALS (1946) (Baseball Series, I) — A V 2 CORONET
10 min.; also color. *
Batting skills analyzed and demonstrated: choosing right bat, taking proper grip, stance in box, watching ball, proper arm position, stride, swing, follow-through. Importance of constant practice stressed.

190. BATTLE OF THE CENTURIES, THE (1932) (Battle for Life Series) — C II TFC
10 min. *
Activities of a colony of termites: how they communicate with each other; duties of individual termites (workers, fighters). A life and death struggle shown, in which termites repulse attack of invading ants.

191. BATTLING BASS (1946) — A V 2
9 min.; also color; also silent. — HL
Underwater photography of bass in action; fishing for baby tarpon with a fly rod.

192. BEACH AND SEA ANIMALS (1931) — C II EBF
11 min. *

Characteristics, habits, importance of best-known invertebrates living on or near beach.

193. BEAR AND ITS RELATIVES, THE (1943) 15 min.* — C II CORONET

Significant differences in animals of same family; indentification and elementary classification of raccoon, panda, kodiak bear, polar bear, grizzly bear, black bear.

194. BEAR RIVER REFUGE (1948) 35 min.; color; silent.** — A IX 1 F&WS

Scenic beauty of Bear River Refuge (north end Great Salt Lake bed, Utah); ducks, geese, pelicans, cormorants, gulls, swallows, shorebirds, marsh hawk, burrowing owl in safe habitats in Refuge. Manipulation of water control gates and other Refuge operations.

195. BEAT BALL (1951) (Recreational Games Series) 4 min.* — A V 2 IND

Group of junior high school boys and girls play beat ball; division into teams; throwing, running, putting the runner out. Variations on original games.

196. BEAVER, THE (1950) 11 min.; color.* — C II EBF

Activities of beaver in natural environment; how beaver's teeth, feet and tail aid in swimming, eating, felling trees, repairing broken dam; construction of beaver house. Beaver as agent of conservation; as valuable fur-bearer.

197. BEETLES (1931) 11 min.* — C II EBF

Life cycles of tiger, Japanese, ladybird beetles. Economic aspects of spread in the United States of harmful varieties. Methods of control suggested.

198. BEFORE THE ALARM (1942) 10 min; also 35 mm.** — A IX 1 NaBFUn

How fire prevention engineers work in typical community in United States; how public officials and fire prevention experts cooperate to safeguard lives and property from fire.

199. BEFORE THE BABY COMES (1937) 11 min.* — A II 11 KB

Correct practices for expectant mother; value of early physical examination. Correct clothes shown and explained; dental care, foods, exercise, bathing and other practices for good health during pregnancy.

200. BEFORE THE BLAST (1950) 10 min.; color.** — A II 7c AETNA

How to transport, store and use commercial high explosives.

201. BEGINNING OF PICTURE-MAKING (1951) (Creative Hands Series No. 2) 6 min.; color.* — A V 1 IntFB

Examples of work produced chiefly with tempora paint by children, ages three to five. Skills not mastered; creativity high.

202. BEGINNING RESPONSIBILITY: TAKING CARE OF THINGS (1951) 10 min.; also color.* — A VI 2 CORONET

How and why children should care for things at school and at home.

203. BEGINNING TUMBLING (1946) (Tumbling Series, I) 10 min.; also color.* — A V 2 CORONET

Two basic progressions (inverted balance and roll), flips, rolls, stands, singly and in combination.

204. BEHAVIOR PATTERNS AT ONE YEAR (1934) 10 min.* — A II 4c EBF

Series of test situations revealing normal behavior patterns for infant at fifty-two weeks. Reactions interpreted as infant manipulates one, two, three and ten cubes. Other tests involving cup and spoon, cup and cubes, pellet and bottle, ring and string, paper and crayon.

205. BEHIND THE FLYWAYS (1951) 30 min.; color.** — A VIII F&WS

How data are gathered on the North American continent for use in making waterfowl regulations: field studies from Mexico to the Arctic on land, water, in air. How information obtained is developed into regulations to preserve wild fowl and assure continued hunting.

206. BEHIND THE SHOP DRAWING (1943) 17 min. — A VI 3 JamH

Importance of shop drawing. Perspective drawing. Method of making the drawing, shown step by step. Blueprints.

207. BEHIND THE SMILE (1947) 11 min,; color. — A II 2 DCStL.

Teaches importance of periodic dental care and daily use of essential foods in building good teeth.

208. BEITRÄGE ZUR BIOLOGIE DES HAKENWURMS IN CHINA 28 min.; silent.* — A II 1c SAB

Reel I: Buildings of Institute of Hygiene and Bacteriology of the Military Academy of Canton, and of surrounding country. Collection, storage and utilization of "night soil" (human excrement) for fertilizer. Farming in region

involving irrigation of vegetables and growing rice provides opportunity for development of hookworm ova and for heavy infections in farmers. Method (Teleman and Fulleborn) by which hookworm ova can be demonstrated in stools; microscopic views of ova and development of larvae to rhabditiform stage. Route of infection of hookworms through skin of bare-foot farmers, into blood stream and lung and final localization in small intestine, illustrated by associated diagrams. Hookworms shown attached to mucosa of intestine; copulating pairs detached and photographed in saline.
Reel II: The patient: diagnosis, cachexia (not specific); treatment: carbon tetrachloride and prophylaxis (boots and shoes).

209. BELOW KNEE AMPUTATION (PMF 5031) (1946) — A II 1q — USArmy-P
14 min.; color. **
Accepted amputation method useful both immediately after injury and in repair of stump.

210. BENDING COPPER TUBING TO A WIRE TEMPLATE (1944) — A VI 1 — OE
(Shipbuilding--Coppersmithing--102)
22 min. *
How tubing is annealed, cooled, and filled with rosin; how wire template is made; how bends are marked on copper tubing, made and checked; and how to remove puckers which are too large or too closely spaced.

211. BENEATH OUR FEET (1932) — C II — TFC
(Battle for Life Series)
9 min. *
Insect world as it exists in typical grass plot: bee, ant, aphid, beetle, cricket, spider, centipede.

212. BENEFITS OF LOOKING AHEAD (1950) — A VI 4 — CORONET
10 min.; also color. *
How planning for future helps high school boy concentrate on daily activities leading to his goals: happy family life, vocational success, satisfying social life.

213. BENIGN DENTAL TUMORS (PMF 5136) (1950) — A II 1e7 — USArmy-P
29 min.; color. **
History, diagnoses, characteristics, treatments and results of cases of benign dental tumors.

214. BENIGN TUMORS OF THE UTERUS — A II 1o — IO-R
15 min.; color; silent. *
Types of benign uterine tumors; gross pathology. Tumors in situ as seen on operating table; removed and sectioned for gross study. Animations illustrate growth and production of some symptoms. Operative technique not shown.

215. BENJAMIN FRANKLIN (1949) — A IX 1 — EBF
16 min. *
Biography of Franklin: statesman, man of letters, scientist-inventor; early struggles as apprentice, later successes as publisher and author; his experiments in science; statesman and diplomat; American representative to England and France.

216. BETTER CHOICE OF WORDS (1952) — A IV 1 — CORONET
11 min.; also color. *
High school girl learns principles of choosing words well; importance of vocabulary improvement, clear mental picture, selection of words suitable to audience.

217. BETTER EATING √√(1947) — D I 3 — I.I-A.A.
7 min.; color.
How more and diversified vegetables may be grown at small expense in a home garden (in an equable climate).

218. BETTER FARMING--MORE MILK √√(1947) — D I 2 — J.I-A.A.
10 min.; color.
How cleanliness on a dairy farm where primitive conditions prevail improves quantity and quality of milk.

219. BETTER FARMS FOR A GREATER GEORGIA (1948) — D I 1 — ICCF
26 min. **
Life in the state of Georgia. How exhausted land lowered standard of living in rural communities; how citizens united in successful effort to reclaim 30,000 acres by use of modern methods and equipment.

220. BETTER FISH IN MICHIGAN (1950) — D III — MichDC
25 1/2 min.; color. **
Various phases of fishing in Michigan; scientific basis for programs of fish management.

221. BETTER POND FISHING (1951) — D III — MissoC
20 min.; color. **
How good fishing results from proper pond management; comparison of multi-purpose pond with pond improperly maintained; how grass watershed, fencing out cattle, approved aquatic vegetation, stocking with recommended fish species and ratios contribute to annual harvest of desirable fish. How managed ponds provide cleaner and cooler permanent water for livestock and cover for wildlife. Pole and fly fishing; bait casting.

222. BETTER RUN FOR YOUR MONEY, A (1948) — E V — Har-Sey
20 min.; color. **
Role in selling played by attractively printed advertising material. Advantages of offset lithography over other forms of printing.

223. BETTER SCHOOLS FOR RURAL WISCONSIN (1948) A I 1 UWis
29 min.*
Documentary film built around actual experiences of teacher and pupils in typical Wisconsin, one-room rural school and in modern central schools located in Cobleskill and Middleburgh, New York. Typical one-roon rural school shown to be inadequate; central school, located in open rural area, more completely meets educational responsibilities as thought of today. All teachers, pupils, school officials, town officers, and adults shown in film were authentic participants in the situations depicted.

224. BETTER TOMORROW, A (1945) A I 1
25 min. STATE
Public school system of New York City. Emphasis on progressive teaching methods encouraging self expression at elementary level; career guidance at junior high level; university preparation, vocational training, civic education at high school level. Facilities and opportunities open to all.

225. BEVEL PROTRACTOR, THE (1944) A VI 1 OE
(Machine Shop Work--Precision Measurement--50)
15 min.
Principles of vernier bevel protractor; how to set and read bevel protractor; and use protractor to lay out angular work and to check angles.

226. BEVELING, MITERING, RABBETING AND DADOING (1944) A VI 1 OE
(Woodworking--Variety Saw--307)
19 min.*
How to cut bevel with tilted fence; set miter gage; use stopblock in mitering; set fence and blade for cutting rabbets; install and use dado head.

227. BEVELING, STOP CHAMFERING AND TAPERING SQUARE STOCK (1944) A VI 1 OE
(Woodworking--Jointer--303)
20 min.*
How to set fence for bevel cutting; adjust proper amount of cut; cut chamfer; and tapers.

228. BIG HARVEST: THE STORY OF AGRICULTURE (1946) A IX 1 TwC-FF
(The World Today Series)
18 min.*
How the farmer, through his ability to increase production, makes use of scientific and industrial aids, and carries out conservation programs, has contributed to the economic and social development of the United States.

229. BIG LITTLE RAILROAD, THE (1948) A IX 1 CentR
25 min.; color.
Operation of Central Railroad of New Jersey; tour of railroad system; example of short-line railroad with large volume of traffic.

230. BIG RACE, THE (1950) A V 2
11 min.; color. ** FORD
1950 five hundred mile race, Indianapolis Speedway. Pre-race preparations; famous drivers and crews; crowds of spectators. Authentic detail.

231. BILATERAL FEMORAL VEIN INTERRUPTION (No. 283) (1946) A II lq DG
27 min.; color; silent. **
Ligation and division of veins (1) bilaterally, for deep femoral vein thrombosis and prevention of pulmonary embolism; and (2) right superficial femoral with thrombectomy. (Dr. Robert R. Linton)

232. BILHARZIASIS IN WATER FOWL (PMF 5126) (1949) A II 1 s USArmy-P
18 min. **
Essential items of life cycle. Detailed studies of movements of worms and cercariae.

233. BILL GARMAN, 12-YEAR-OLD BUSINESS MAN (1946) D I 3 FRITH
11 min.; color.
Bill Garman plans and carries through a work project: raises rabbits and a few hogs; takes good care of stock; plans carefully how to sell; ties up rabbit skins, takes them to market, bargains for good price; banks his money; figures accounts carefully with his father. Together, they plan how to invest profits. When Bill's friends want to go to ball game but have no money, Bill steps forward, saves the day, and the three chums leave for the game.

234. BILL OF RIGHTS, (1939) A IX 1
20 min.; color.* TFC-Warner
A dramatization of events which led to formulation of the Bill of Rights, incorporated in the Constitution of the United States. American protest against decrees of George III; Burke's championship of American colonies, dissolution of Virginia House of Burgesses; the Fairfax Resolves. Opposition to Dunmore; his departure. Struggle among Americans to incorporate the Bill of Rights in the Constitution.

235. BILLION DOLLAR MALADY, THE (1952) A II 2 BRAY
14 min. *
Common cold; facts concerning it; prevalence; cost to workers and employers; how to avoid. Safeguards available.

236. BILLY AND NANNY (THE GOAT TWINS)√√(1952) C II EBF
11 min. *
Habits of domesticated goats on farm; feeding, milking, and care of mature goats. Mischievous activities of two young goats.

237. BIOGRAPHY OF THE MOTION PICTURE CAMERA (1947) B VI 2 AF
20 min.; also 35 mm.*
Development of the photography and projection of motion: Marey, Muybridge, Edison, Lumiere.

238. BIOLOGY OF DOMESTIC FLIES (M80)/(1952) C II CDC
(Community Fly Control Series)
9 min. **
Life cycle of housefly; characteristics of domestic flies, typical breeding and resting places, implications of flies to public health, development of strains of flies resistant to insecticides. Importance of knowledge of life cycle of domestic fly to effective control measures.

239. BIOLOGY OF REPRODUCTION IN RATS, THE (1942) C II WISTAR
15 min.; color. *
By obtaining concurrent estrus and hour-by-hour running records in rats, extending from puberty to old age, Doctor Farris has discovered a "running" pattern which enables him to detect precisely, from "running" records alone, exact time of commencement of estrus and time of many of other reproductive incidents. Rat running on inclined table; apparatus room in which cyclometer figures are tallied and photographed automatically at hourly intervals. Varying mating behaviors, male and female, at different stages of estrus. Living ovaries, oviducts and uterus at various stages; activities of spermatozoa in the several parts of female genital tract at different phases of estrus. (Dr. Edmond J. Farris)

240. BIRD HUNT (1951) A II 4 c
10 min.* UCLA
Two boys' first experience with inflicted death (no narration; music only).

241. BIRDS ARE INTERESTING (1950) C II
11 min.; color. * EBF
Basic biological concepts concerning birds; analysis by classification in three categories: swimming and wading birds, birds of prey, perching birds. Such features as bills, feet and wings contrasted to characterize each type.

242. BIRDS IN WINTER (1946) C II
10 min.; also color.* CORONET
Seasonal aspects of bird life; food-getting adaptations of birds in winter; how to use feeding station to attract birds.

243. BIRDS OF PREY √ (1938) C II
11 min.* EBF
Activities, development, habitats of representative species of owls, vultures, eagles, hawks. Carniverous habits; talons, beaks.

244. BIRDS OF THE COUNTRY-SIDE (1946) C II CORONET
10 min.; color.*
Birds common in U.S.A. (indigo bunting, western meadowlark, nighthawk, eastern kingbird, redtailed hawk, killdeer); characteristics of each; habits; adaptation to environment.

245. BIRDS OF THE DOORYARD (1946) C II CORONET
10 min; color.*
Spring and summer birds (robin, sparrow, bronze grackle, house wren, yellow warbler, purple martin) studied through telescopic lens; nesting and feeding habits. How these birds may be attracted. (ref. bibliography in Teachers' Guide).

246. BIRDS OF THE INLAND WATERWAYS (1946) C II CORONET
10 min.; color.*
Birds that find their food in lakes, ponds, rivers and smaller streams: kingfisher, herons, shore birds, Canada goose, ducks. Waders, divers. "Colonies." Adaptation to environment.

247. BIRDS OF THE MARSHES (1945) C II
10 min.; color.* CORONET
The marsh depicted (mud, reeds, water). The redwinged blackbird, least bittern, sora rail, black tern, long-billed marsh wren, pied-billed grebe. Their nesting and feeding habits.

248. BIRDS OF THE SEA C II
(1933) TFC - 20th Cent-Fox
10 min.*
Oceanic birds in various parts of the world: gannets, cormorants, murres, penguins.

249. BIRDS OF THE WOODLANDS (1946) C II CORONET
10 min.; color.*
Forest birds, their relation to their habitat: American redstart and a cowbird, purple finch, oven-bird, northern flicker, black-billed cuckoo. Peculiarities in nesting and feeding habits.

250. BIRDS OF WOODY ISLAND (1940) C II F&WS
15 min.; color;silent.**
Island in Bowdoin (Montana) National Wildlife Refuge, taken over by terns, ring-billed and California gulls, double-crested cormorants, white pelicans. How young birds are fed by regurgitation.

251. BIRTH AND THE FIRST FIFTEEN MINUTES OF LIFE (1949) A II 4 c SPITZ
(Studies-Problems in Infancy)
10 min.; silent.*
Birth of baby and reactions to stimuli presented within first fifteen minutes after birth; first feeding twenty-four hours later. Second baby with contrasting reactions to same stimuli; removal of placenta.

252. BIRTH OF A SOUTHERN PINE (1949) D I 5 SoPULP
15 min.; color.**

How pine trees reproduce themselves, both in natural stands and when aided by nursery methods. Seven varieties of pine that grow in southern part of the U.S.A., identified. Pollination and the gathering and preparation of seeds for nursery planting. Nursery processes of seedbed preparation, planting, watering, cultivation, lifting, grading and packing demonstrated.

253. BIRTH OF THE SOIL (1948) C VI
(Living Earth Series) EBF
10 min.; color.*
How man's survival depends on topsoil; how topsoil is produced through centuries from basic raw materials: rock, water, air, sunlight. Contrasted with subsoil.

254. BIRTHPLACE OF ICEBERGS C VIII
(1941) TFC-20th Cent-Fox
(Father Hubbard's Adventure Series)
11 min.*
Study of world's largest tidewater glacier shown discharging tremendous masses of ice into Gulf of Alaska. Two contradictory theories of iceberg formation (by weight and pressure of water, respectively.)

255. BIRTHRIGHT (1951) A II 1 d
45 min.* COLUM
How unborn child was saved from syphilis infection unsuspected until late in pregnancy. Community's organized effort to combat congenital syphilis.

256. BLACK BEAR TWINS √√ (1939) C II
11 min.* EBF
Habits and characteristics of bears demonstrated by two mischievous cubs: they search for food, frolic in forest, raid wild-bee hive, nurse stings in mud.

257. BLANKING SHEET METAL ON THE SQUARING SHEAR (1943) A VI 1 OE
(Sheet Metal Work - Blanking Sheet Metal - 130)
15 min.*
How to lay out tapered blanks on aluminum sheet; use holddowns and treadle; check blanks, further adjust machine; trim blanks.

258. BLANKING SHEET METAL WITH HAND SNIPS (1943) A VI 1 OE
(Sheet Metal Work - Blanking Sheet Metal - 131)
18 min.*
How to cut along straight line; cut outside circle and notch; cut an inside line; remove burrs left by cutting.

259. BLANKING WITH ROTARY AND HIGH SPEED SHEARS (1945) A VI 1 OE
(Sheet Metal Work - Blanking Sheet Metal - 292)
16 min.*
How to set up rotary shears, make test cuts, operate shears; set up high speed shears; make test cuts, operate shears.

260. BLANKING WITH THE SWING ARM ROUTER (1944) A VI 1 OE
(Sheet Metal Work - Blanking Sheet Metal - 132)
17 min.*
How to operate swing-arm router; set up work and template for routing; change router bits; rout internal contours; extend contours.

261. BLIND RIVETING (1944) A VI 1
(Sheet Metal Work - Assembling and Riveting - 294) OE
15 min.*
Necessity for blind riveting; how to rivet parts that are completely blind; and use special tools and rivets in blind riveting jobs.

262. BLOCKING IN FOOTBALL (1946) A V 2 EBF
11 min.*
Importance of speed, power, drive, follow-through, timing, body-control in blocking. Correct starting position for all blocks; cross-body and shoulder blocks; variations. Slow-motion, stop-motion, superimposed animated drawing used.

263. BLOOD CIRCULATION IN MARINE ANIMALS C II IO-R
15 min.; color; silent.*
Circulating fluids and mechanisms in Thalassema, Nereis, Cistenides, Callinectes, Palaemonetes, Ostrea, a fish and a terrapin. Colorless and pigmented fluids and corpuscles in pulsating vessels and hearts. Microscopic views of capillaries and circulating media demonstrate transportation of food, oxygen, and wastes.

264. BLOOMING DESERT, THE (1945) C III S-M
11 min.; also color.*
Floral beauty of western desert areas of U.S.A. Many varieties of desert wild-flowers presented in close-ups.

265. BLOWPIPES (1945) A VI 1
28 min.; color.** Owens-Ill
History of glass-making. Types of glassware. Modern automatic machine processes: raw materials testing, weighing, mixing, furnace melting, glass forming. Burn-out, stress and strain equalizing; polariscope check tests. Heat treating, chilling, shock testing. Inspection, packaging and storing. Work of artists: screen designing, acid etching. Hand blowing.

266. BLUE RIBBON (1948) D I 3
20 min. STATE
Family life and interests of rural youth with special reference to 4-H Club activities and county agricultural fair where livestock, farm produce, and homemaking projects of individual members are entered in competition for "blue ribbon" awards.

267. BOATS √√ (1938) A IX 1
11 min. ; * EBF
Boy and girl going by boat from Albany down Hudson River to New York City see many types of water craft, including sailboat, cabin cruiser, fire-boat, barge, police boat, ocean liner; they inspect wheel house and engine room.

268. BOB GAFFNER, FISHERMEN'S HELPER (1950) A IX 1
FRITH
11 min. ; color.
Bob's Uncle John teaches Bob about life of Pacific Coast fishermen who fish for sardines, tuna and mackerel. Bob helps dry and mend nets, lace cork floats and weights to nets and thread large needles; he learns to sew.

269. BOBOLINK AND BLUE JAY, THE (1946) C II
CORONET
10 min. ; also color. *
How bobolink and blue jay take care of their young.

270. BODY CARE AND GROOMING (1948) A II 2
McG-H
(Health Education Series)
17 min.
Importance of personal cleanliness. Relation to good health. Recommended routines for care of skin, hair, nails, teeth. Social importance of good grooming.

271. BODY DEFENSES AGAINST DISEASE √√ (1937) C II
EBF
(The Human Body, Series 1)
11 min. *
The human body's three lines of defense against infection: the skin and mucous membrane; the lymphatic system; the circulatory system, including liver and spleen. Animated drawings and cinemicrography used. Immunity explained; methods to strengthen defenses suggested.

272. BODY FIGHTS BACTERIA, THE (1948) A II 1
McG-H
(Health Education Series)
15 min.
Counter-balances to human disease: (1) body's own defenses; (2) artificial immunization; (3) drugs.

273. BONE BANK, THE √√ (1950) A II 11
28 min. ; color. * SturG
How a bone bank for refrigerated, homogenous bone is organized and employed. Sites from which bone is obtained; method of storing in deep-freeze unit. Typical orthopedic operations in which used. How body assimilates such bone. Advantages of using refrigerated, homogenous bone. (Dr. Philip D. Wilson)

274. BOOKKEEPING AND ACCOUNTING (1945) A VI 5
MAHNKE
11 min. *
Description of work bookkeeper and accountant perform; tools with which they work; education and training required. Various types of advancement possible.

275. BOOKKEEPING AND YOU (1946-7) A VI 3
CORONET
10 min. ; also color. *
Actual business transactions of grocery store shown with accepted procedure for their recording; value of bookkeeping in every line of business and professional life; its importance in keeping record of personal finances.

276. BOOKS AND PEOPLE (1947) A I 2
15 min. ; color. *** APL
The Alabama Public Library Extension Service shown in action; how it helps small communities in establishing county library service. How county library helps public; many uses made of books and periodicals, illustrated.

277. BOOKS FOR EVERYONE (1950) A I 2
10 min. STATE
How reading material is made available to everyone in United States (through inexpensive pocketbook editions). Book publishing from Gutenburg when editions were limited, to present day of large editions, wide distribution through many agencies which facilitate placement in reader's hands.

278. BOOKWARD HO! (1947) A I 2
10 min. ; also color. * GPP
How a bookmobile, operated through county superintendent of schools, makes its rounds to rural students; they select books and in their imaginations make them part of their own lives.

279. BORDER WITHOUT BAYONETS √√ (1947) B II
RKO
16 min.
Longest unfortified boundary in the world (United States and Canada); five thousand miles of border with only markers to tell where one country ends and the other begins; how maintained: International Joint Commission controls border with both countries represented and each country contributing to cost. Royal Canadian Mounted Police and United States Border Patrol operate as team. How two nations live side by side in mutual respect and understanding without bloodshed or violence.

280. BORING HOLES WITH OFFSET BORING HEAD (1944) A VI 1
OE
(Machine Shop Work-Milling Machine-209)
28 min. *
How to mount workpiece on milling machine table; bore with offset boring head; use plug gages and micrometer to check center distance between holes.

281. BORING TO CLOSE TOLERANCES √√ (1944) A VI 1
OE
(Machine Shop Work--Engine Lathe--59)

How to mount and adjust brass valve bonnet in ring fixture; rough and finish-face hub; rough and finish-bore hole to close tolerances; how to prevent bellmouth when boring hole; how to use plug gage; how to set inside calipers for close measurement.

282. BOUNDARY LINES (1947) B VIII
10 min. ; color. * INTF
Imaginary lines--of fear, possession, color, greed--that divide people from each other. Their unreality stressed.

283. BOWLING FUNDAMENTALS (1947) A V 2 MAHNKE
10 min. *
Initial techniques of bowling presented by expert to group of boys and girls.

284. BOY SCOUT JAMBOREE --YOUTH UNITED (1951) A I 5e STATE
10 min.
Youth of many lands participate in Boy Scout clubs; international fellowship among scouts expressed at 2nd National Jamboree at Valley Forge; American boys were host to scouts of eighteen other nations; camp life and scout activities.

285. BRANDON (1943) A IX 1
10 min. ; color. UnitSp
Georgian plantation house on James River; Virginia tradition and way of life.

286. BRASS CHOIR√√(1937) E VII
11 min. * EBF
Function of brass choir in symphony orchestra. Each brass instrument heard in solo passages, illustrating how each sounds, looks, and is played.

287. BRAZING CARBIDE TOOLS (1944) A VI 1 OE
(Machine Shop Work--Carbide Tools--241)
18 min. *
How to braze carbide tools with silver solder; how to make a sandwich braze; how to braze by other methods.

288. BRAZING FLANGES WITH SILVER SOLDER (1944) A VI 1 OE
(Shipbuilding--Coppersmithing--104)
13 min. *
How tubing and silver brazing flanges are fitted; how flux is applied; how heat is applied to draw silver solder in and out; how to clean flange after soldering.

289. BRAZING FLANGES WITH SPELTER (1944) A VI 1 OE
(Shipbuilding--Coppersmithing--103)
19 min. *
How copper tubing is prepared for flanges; how flanges are fitted for brazing; borax is applied before brazing flanges; tube and flange brazed over forge; brazed flanges prepared for installation on hull.

290. BREAD (1945) A III 3
11 min. * EBF
Story of bread: how wheat is cut, threshed, ground into flour; how bread is made at a large bakery; how it is sliced and wrapped for delivery.

291. BREAST AND AXILLA (1941) A II 1a
(Surgical Anatomy Series) BURKE
15 min. ; color; silent. *
Lymphatic drainage of breast. Incision made and pectoralis major severed just below cephalic vein as in radical breast amputation. Division of pectoralis minor exposes axillary vein and lymphatics which are dissected. Three divisions of axillary artery and vein, brachial plexus cords, and nerves branching from them. Dissection of unembalmed cadavers shows natural color and condition of tissues involved.

292. BREAST CANCER: THE PROBLEM OF EARLY DIAGNOSIS (1949) A II 1o ACS
(No. 2, Medical Series).
34 min. ; color. ***
Second film in diagnostic teaching series, again emphasizing crucial importance of early, accurate diagnosis and effective treatment. Many deaths can be prevented because (1) modern treatment cures most early breast cancers and (2) early diagnosis is favored by accessibility of this site to examination. Normal growth and development of breasts described; clinical pathology of breast cancer; techniques of breast examination.

293. BREAST PLASTIC: ONE STAGE OPERATION FOR PENDULOUS BREASTS (1951) A II 1q THOR
20 min. ; color; silent. *
One stage operation for pendulous and hypertrophied breasts. Free transplantation of nipples demonstrated; scars so placed as to render them practically invisible.

294. BREEDING BETTER FOOD CORPS (1949) D I 1 NatGar
20 min. ; color. **
How seed production, as practiced on vegetable seed farms in California, begins with ideal plants discovered as mutants or produced by hybridizing; how commercial seed crops are produced on large acreages; value of uniform, improved variety seed.

295. BRICK AND STONE MASON (1945) A VI 5 MAHNKE
11 min. *
Various phases of work in structural masonry; qualifications required. Technical terms: headers, stretchers, archers, keystone, custone, and rubble defined and illustrated. Patterns of laying masonry discussed and shown as they relate to strength and beauty of handiwork of mason.

296. BRIGHTER LOOK, THE (1949) D I 3
24 min. ; color. ** UofGA
Historical review of early cotton plantations of "the Old South;" destruction during Civil War; the boll weevil; "the depression." How research in laboratories and experimentation is revitalizing the land. Work of agricultural extension and home demonstration agents, with farmers, 4-H club members and homemakers. Why run-down homes should be repaired and brightened up to reflect rising productivity of soil. 4-H member demonstrates how to mix paint; use of turpentine and linseed oil. Difference between good and bad paint; between right and wrong ways of painting. Effect and value of good painting. Program planning committee talks over community problems. Benefits of planning (new business, more trade, more visitors). Part painting plays in making community attractive. How remodelling and painting can make drab rooms convenient and cheerful.

297. BROACHING AN INTERNAL KEYWAY (1944) A VI 1
(Machine Shop Work--Broaching Machine--236) OE
23 min.
Internal broaching illustrated; how broaching tool cuts; principles of broaching tool design; how to select broaching tool for job; and to operate horizontal broaching machine.

298. BROAD JUMP, THE (1945) A V 2
(Track and Field Series, 1) CORONET
10 min. *
The jump in its parts and its related event (hop, skip, and jump) presented in regular, slow, and stop-motion photography.

299. BROAD JUMP, THE A V 2
(1947) UWF-GB
10 min. *
Controlled speed; timing and co-ordination; development of legs and torso; mobility of pelvis and hips; one, two, three style; foot roll; single and triple air stride; soft versus hard take-off-arm position.

300. BROADBASE TERRACING (1942) D I 1
10 min.; color. ** Case
How to build a broad base terrace with a tractor and one-way disc plow, demonstrated step by step. Both eastern and western types.

301. BROADER CONCEPT OF METHOD √ (1948) A VI 3
(Teacher Education Series) McG-H
13, 19 min.
Part I. Developing Pupil Interest. Teacher-dominated, lesson-hearing type of recitation; typical effects on student attitudes, responses, learning. Alternative techniques presented. Comparisons. How freedom of discussion may lead to meaningful learning experiences.
Part II. Teacher and Pupils Planning and Working Together. In developing proposed project, students work together, organize into functional groups, make and carry out plans for investigation, present findings, make recommendations. Value of techniques illustrated.

302. BRONCHIOGENIC CARCINOMA (1951) A II 1o
15 min.; color. ** VETS
Importance of early diagnosis and treatment of bronchiogenic carcinoma. Incidence of the disease, symptoms, diagnostic features, surgical management.

303. BRONCHOSCOPIC CLINIC, A' (1949) A II 1 q
32 min.; color; silent. JHMF
Histories, x-rays, bronchoscopic findings and, where biopsies were taken, histology of 10 patients with bronchopulmonary disease. Operating room and instrumentarium as well as technics of anesthesia, of bronchoscopic examination itself and of bronchoscopic photography shown. (Drs. P. M. Holinger, K. C. Johnston and Frank Novak)

304. BROODING CHICKENS IN PERMANENT BROODER HOUSES (1948) D I 2
30 min.; color; silent. * NYSExt
Several types of permanent brooder houses; care of baby chickens; heating and ventilating systems, including radiant heating system.

305. BROOMSTICK GYM (1944) A II 6
17 min. * BSA
Senior scouts demonstrate series of physical exercises with wooden dowels.

306. BROTHERHOOD FOR SURVIVAL (1949) B VIII
11 min. ** NCCJ
Program of National Conference of Christians and Jews explained; cooperative relationships with various types of organizations including differing religious denominations.

307. BROTHERHOOD OF MAN (1946) B VIII
10 min.; cartoon, color. * BF
The inherent equality of men regardless of race. Points out that differences between the human races are largely superficial, accidental, or environmental.

308. BRUSH IN ACTION (1948) E VIII
10 min. * IntFB
How to use water color brushes. Different kinds of brushes; ways they may be held for type of work to be done. Techniques of washing, toning, emphasizing surface texture of paper and painting a picture. A rural scene, including farm buildings, drawn by brush; versatility of flat brush and round brush.

309. BRUSH TECHNIQUES (The Language of Water Color) (1947) E VIII
11 min.; color. * EBF
Eliot O'Hara, A.N.A., demonstrates how

watercolor art communicates vivid impressions of landscape: making smooth wash; preparing brush; mixing colors; using several colors on single brush; splitting brush; reproducing various textures and shadows; achieving perspective; effecting hard and soft edges.

310. BUCK FEVER (1949) C II
21 1/2 min.; color.** MichDC
How interest of deer hunters in Michigan north country relates to deer population and food supply.

311. BUDDING YEASTS (Monilias) A II 1c
(1947) SAB
4 min.; silent (time-lapse). *
Pair of yeast cells: In one cell wall becomes thin in one area; daughter cell forms and grows. Some light refracting granules moving about in mother cell; flow into daughter cell. Process is repeated with another pair of yeast cells; followed until one yeast cell has given rise to nine cells. (Dr. Adrianus Pijpher, South Africa)

312. BUFFALO LORE (1947) C II
9 min.; also color. * HL
History of American bison. Buffalo shown on native range.

313. BUILD YOUR VOCABULARY A IV 1
(1948) CORONET
10 min.; also color. *
Story of a father who finds himself at a loss for words at a public meeting, takes a cue from his son, and embarks on a campaign of improvement, demonstrates importance of a good vocabulary and how it may be developed.

314. BUILDERS OF THE BROAD D II
HIGHWAY (1941) FRITH
22 min.; color.
A road building construction job; building processes; types of skilled and unskilled labor. Contribution of different types of workmen: skill, energy and cooperation required by different crafts.
Part I: Laying out job, contracting, blueprinting, surveying, dynamiting, grading, installing the underground drainpipes and domestic water pipes, arc welding, putting in power lines, telegraph and telephone lines.
Part II: Building above-ground construction work (bridges, underpasses, retaining walls) and laying of concrete. Carpenters, steel workers, concrete mixers, crane operators, pile drivers, inspectors and overseers. Heavy mechanical spreaders and finishing machines.

315. BUILDING A BETTER WORLD D II
(1946) CateT
29 min.; color. **
How diesel-powered equipment helps to harness sources of power; operation of track and wheel tractor bulldozers, carryalls, graders, draglines, wagons, shovels, and scrapers, under various conditions; zoned equipment planning.

316. BUILDING A BOX BEAM SPAR A VI 1
(1944) OE
(Aircraft Work--Wood Fabrication--297)
21 min. *
How to assemble parts of spar in jig; apply aircraft glue; clamp parts together for good glue bond; varnish surfaces for protection from moisture; use jigs for accurate drilling.

317. BUILDING A HIGHWAY (1948) D II
11 min. * EBF
Major steps in construction of modern two-lane highway. Clearing, cutting, scraping, leveling roadbed; assembling materials; mixing and dumping concrete; smoothing and finishing surface. Necessary skills involved in providing safe, well-built highways.

318. BUILDING A HOUSE √(1947) A III 1
(Clothing and Shelter Series) EBF
11 min. *
Basic, step-by-step processes in construction of a low-cost, woodframed, one-family home from digging foundations to finishing interior. Tools used; how used shown in close-up.

319. BUILDING A POND (1945) D I 2
10 min.; color. ** Case
How to build a stock-watering pond on suitable site with tractor, plow and scoop: core trench, stock-watering supply pipe; moving clay to fill core trench; trickle pipe; how to check height and width of dam. Floodwater spillway. How to fertilize and seed site.

320. BUILDING A SET √(1951) E III
(Drama Series) IntFB
11 min. *
Work of technician charged with building a set, from receipt of designer's floor plan to completion of set.

321. BUILDING A WOODEN RIB (1944) A VI 1
(Aircraft Work--Wood Fabrication-- OE
296)
19 min. *
How to assemble, fit, and glue wooden parts in jig; fit and position gussets to framework; apply aircraft glue and varnish.

322. BUILDING AMERICA'S HOUSES A III 1
(1947) EBF
11 min. *
Reasons for high building costs; methods for reducing them. Mass building techniques. Building codes, trade restraints, union work rules discussed.

323. BUILDING GOOD TERRACES D I 1
(1943) Case
10 min.; color. **
How to build terrace and drainage channel with a moldboard plow, demonstrated step by step.

324. BUILDING OF BOYS, THE (1943) A I 5e
10 min. STATE

Work of Boys' Clubs of America which provide facilities and activity programs to keep underprivileged boys in large cities physically fit and mentally alert; recreational, vocational and cultural aspects of program.

325. BUILDING TECHNIQUES-- FOUNDATIONS AND CONCRETE (MN 6719a) (1950) 20 min. — A VI 1 USNavy

Brief overview of the construction of a building foundation, usually concrete; factors which change construction pattern.
One of a series of six films showing in detail the procedure of constructing a two-story building; includes construction of walls, floors, doors, and windows, as well as the laying out and cutting of rafters.

326. BUILDING THE GOLDEN GATE BRIDGE (1939) 45 min.** — D II BETH

Construction of Golden Gate bridge; discussion of unusual fabrication and transportation problems involved.

327. BUILDING TYPING SKILL (1947) 10 min.; also color.* — A VI 3 CORONET

Pushing into higher speed areas, typist finds that his typing tends to become less smooth and accurate. By practicing skill-building exercises, he masters relaxation, precise operative control, attention to copy, control of his arms and hands and self-confidence. Slow motion details of skill-building exercises.

328. BULKHEAD: LAYING OFF AND FITTING A CENTERLINE STIFFENER (1942) (Shipbuilding--Shipfitting--31) 16 min.* — A VI 1 OE

Work of shipfitter in laying off and fitting T-bar stiffener to watertight bulkhead; in planning work for most economical use of I-beam; in locating and marking ship lines.

329. BULKHEAD: SETTING A TRANSVERSE WATERTIGHT BULKHEAD INTO HULL (1942) (Shipbuilding--Shipfitting--32) 17 min.* — A VI 1 OE

Work of shipwright in setting watertight transverse bulkhead into hull; explanation of function and importance of bulkheads; location and marking of lines that locate bulkhead; procedures used in shifting bulkhead into correct position.

330. BURROUGHS NEWSBOY FOUNDATION (1950) 10 min. — A I 5e STATE

Burroughs Foundation center on Somerset Street and Agassiz Camp, on Lake Thompson, offer recreational and educational guidance to boys working in Boston, Massachusetts.

331. BUS DRIVER (1946) 11 min.* — A IX 1 EBF

Boy and father take bus trip, New York to Pittsburgh. Activities at bus terminal; duties of bus driver; safety rules. How bus trip is planned for passenger comfort.

332. BUTTERFLIES√√(1939) 11 min.* — C II EBF

Life cycles of cabbage and swallow-tail butterflies. Close-up photography of laying of eggs, feeding of larvae, spinning of chrysalis supports; destruction of eggs and larvae by ichneumon fly. Time-lapse photography of emergence of butterflies from chrysalises.

333. BUTTERFLY BOTANISTS (1947) 10 min.; also color. — C II CORONET

Relationship of butterflies to flowers; how butterflies recognize plants they want for food and for laying of their eggs; life cycle of butterfly. The fritillary, hop merchant or comma, monarch, viceroy, swallowtail, wanderer, sulphur, cabbage butterfly.

334. BUYING FOOD (1950) (Home Management Series) 11 min. * — A III 3 YAF

Basic elements of good "buymanship" explained. Dangers of "impulse" buying; quantity buying; understanding descriptive labels on canned goods; seasonal buying; guiding factors in buying meats.

335. BY LAND WE LIVE (1948) 29 min.; color. ** — D I 1 MichDC

Soil conservation in Michigan; how land which has become unproductive, can be restored to produce crops, game, timber.

C

336. CABLE SURFACE WIRING√(1944) (Electrical Work--Wiring--377) 17 min.* — A VI 1 OE

How to make electrical entrance to building; install non-metallic sheathed cable; handle and install porcelain fittings; support and connect cable; prepare and connect wires for service.

337. CAJUNS OF THE TECHE (1942) 10 min.* — A IX 1 TFC-Columbia

Descendants of the French Acadians, made famous by Longfellow's poem, "Evangeline"; their present life in the Bayou Teche country of Louisiana.

338. CAMOUFLAGE IN NATURE THROUGH FORM AND COLOR MATCHING (1945-6) 10 min.; color.* — C II CORONET

Survival value of inconspicuousness. How Nature protects animals, birds, fish from their natural enemies. Thirty-two species shown in unique individual methods of blending with surroundings by form and color matching. Imitation, counter-shading, protective coloration.

339. CAMOUFLAGE IN NATURE THROUGH PATTERN MATCHING (1945-6) — C II CORONET
10 min.; color.*
How animals most needing protection because of age, sex or inability to defend themselves bear protective designs and blend into variegated surroundings, so contrasting in their quiet dress of disguise with those wearing no camouflage, but warning cloaks of bold design.

340. CAMPING FOR GIRL SCOUTS (1949) — A I 5 e GScout
17 min.; color.* (2)
Girl Scout camping; camp life in small units; troop, day, and trip camping; girl's part in planning camp activities. Emphasis upon qualified adult leadership, high health and safety standards.

341. CANCER EDUCATION (1949) — A II 3 UWF
10 min.
Work of mobile x-ray clinic in southern United States. How townspeople are alerted by advance announcement and x-rayed in campaign to educate them toward self-examination for cancer. How check is kept on possible cases of incipient cancer.

342. CANCER OF THE BLADDER (1942) — A II 1 q BURKE
(Surgical Anatomy Series)
15 min.; color; silent.
Diagnosis of malignancy having been confirmed by cystoscopy, tumor is exposed by spurapublic cystomy. Necrotic mass of tumor removed by electrosurgery. X-ray tube, surgically dressed, brought into contact with tumor base. Treatment of cancer of bladder, papillary type.

343. CANCER OF THE FEMALE BREAST (No. 127) (1941) — A II 1o DG
37 min.; color; silent.**
Diagnosis; several types of carcinoma demonstrated; methods of biopsy; results of treatment by combination of irradiation and operation. Performance of latter shown in detail. (Dr. Frank E. Adair)

344. CANCER: THE PROBLEM OF EARLY DIAGNOSIS (1949) — A II 1o ACS
(No. 1, Medical Series)
30 min.; color.* **
Introductory film in diagnostic teaching series on cancer, emphasizing importance of early suspicion, accurate diagnosis and effective treatment in medical management of cancer patient. Assertion made that almost half cancer deaths that occur yearly in United States could be avoided if disease were diagnosed early and treated effectively. Facts supporting this statement, as they apply to cancer of breast, cervix, stomach, rectum and lung. First successful operation for gastric cancer, performed by Dr. Theodor Billroth in Vienna in 1881, depicted.

345. CANDLE MAKING (1940) — A IX 1 BARR
(Pioneer Life Series)
11 min.; also color.
Candle making as cooperative activity of pioneer American family. Father starts fire with fire bow; boy brings wood and tallow; mother and daughter twist wicks on candle rods; dip them. Father trims finished candles, son packs them in candle box. One candle lights family gathered around fireplace for evening Bible reading.

346. CANINE EYES FOR THE BLIND (1945) — A II 6 HFE
12 min.
How "Seeing Eye" dogs are bred and intensively trained to serve blind masters.

347. CANNING AND UTILIZING BEEF (1949) — A III 3 VaDeptE
20 min.; also color.*
Packing and processing of canned beef in home cannery and uses of canned beef for home menus.

348. CANNING AT HOME (1952) — A III 3 NYSExt
25 min.; color. *
Methods of canning food at home; proper selection and use of equipment; boiling-water-bath method; processing in pressure cooker.

349. CANNING BEEF (1944) — A III 3 OE
(Farm Work--Food Preservation--455)
17 min.*
How to prepare soup stock; how to preheat beef; how to pack hot beef in cans; seal cans; process canned beef; cool and dry cans before packing.

350. CANYON COUNTRY (1950) — A IX 1 FORD
13 min.; color. **
Wonders of the Grand Canyon; petrified forest, Painted Desert; boat trip on Colorado River. Flora; rock formations of the canyon.

351. CAPITAL STORY (1946) — A II 7c USPHS
20 min.**
Industrial hygiene chemist and laboratory workers investigate and remove serious threat to workers' health.

352. CAPITALISM (1948) — A VII CORONET
10 min.; also color. *
Important aspects of capitalistic system: private property, profit, competition, freedom of contract, free enterprise, government regulation (told in conflicting opinion expressed in a high school radio forum).

353. CAPTAIN CAUTION (1945) — A II 7c Humble
22 min.
Safety precautions in marine transportation of oil drilling operations. Inspection of boat equipment; mechanical safeguards (gas detector, automatic fire-fighter). Precautions

in refuelling and starting motor. How to board a boat; effect of "horseplay." Correct procedure in water operation; docking. Emergency procedure when boat is on fire; escape hatch, life raft, hand fire extinguisher.

354. CAPTAIN JOHN SMITH, EXPLORER (1948) — A IX 1 VaDeptE
15 min.; also color. *
John Smith's exploration of Virginia rivers; his dealings with Indians; how Pocahontas saved his life.

355. CARAVANS OF TRADE: THE STORY OF TRANSPORTATION (1946) — B V TwC-FF
(The World Today Series)
18 min. *
How trade and transportation have increased interdependence of nations; situation from ancient to modern times; how interaction of discovery, trade, and transportation helped produce the steamboat, locomotive, automobile, airplane, with their influences on trade routes and methods.

356. CARBON AND ITS COMPOUNDS (1948) — C IV CORONET
19 min.; also color.*
Organized basic information on allotropic forms of carbon: simple compounds; hydrocarbons, chain and ring compounds; isomers. Uses of carbon; its importance.

357. CARBON ARC PROJECTION (1948) — C IV NCC
15 min.; color. **
Optics of motion picture projection; carbon arc explained; high intensity carbon arc as light source of the brilliancy and color balance required in motion picture production.

358. CARBON-BLACK TREASURE (1950) — C IV NCC
37 min.; color.**
How carbon and graphite electrodes and anodes are made; importance of carbon and graphite in modern industry. Selection of raw materials, their transportation, blending; preparation of electrode mix; calcination, extrusion, baking, graphitization, finishing, storage, etc. Electrical conductivity and mechanical strength. Use of giant electrodes in smelting metals for production of high quality steels.

359. CARE OF A TRACTOR √ (1944) — D I 3 OE
(Farm Work--Equipment Maintenance--454)
22 min.*
Day-by-day operating care of a tractor; importance of periodic inspections; parts of tractor, including cooling, fuel, and ignition systems.

360. CARE OF ART MATERIALS (1948) — E VIII YAF
11 min.*
Care and use of brushes, paints, chalk and crayons, scissors, paste and glue, and clay. [An all-animation film designed to promote in young children greater interest in handling and caring for art materials.]

361. CARE OF PETS √ √ (1944) — C II EBF
11 min.*
Care of common household pets: canaries, tropical fish, cats, dogs. Necessity for proper food, cleanliness, grooming, training. Children caring for pets at home; proper care makes for healthy, happy pets.

362. CARE OF THE CAR (1951) — A II 7 d FORD
(Driver Education Series)
10 min. **
Technique of correct care of automobile.

363. CARE OF THE CARDIAC PATIENT (1944) — A II 1 1 OE
(Nursing--419)
33 min.*
Nursing care given cardiac patient, including comfort, rest, sleep, diet and feeding, elimination, cleanliness, and diversional and occupational therapy.

364. CARE OF THE FEET √ √ (1942-3) — A II 2 EBF
11 min.*
Structure of human foot; how it supports the body. Chief causes of abnormal foot conditions; x-ray in diagnosis, treatment. Stresses importance proper hygiene and good fit in shoes.

365. CARE OF THE HAIR AND NAILS √ (1951) — A II 2 EBF
(Keeping Healthy Series)
11 min.*
Fairy tale character shows children how to clean and manicure fingernails, trim toenails, shampoo and brush hair. Common diseases of hair; animated drawings of structure of hair and nails; why care is important.

366. CARE OF THE NEW-BORN BABY (1944) — A II 1 1 OE
(Nursing--412)
31 min.*
Nurse's functions and duties in teaching parents to care for new-born babies; what nurse can do in home, clinic, and hospital; how to hold, dress, bathe, and feed a baby.

367. CARE OF THE PATIENT WITH DIABETES MELLITUS (Complicated) (1944) — A II 1 1 OE
(Nursing--418)
23 min.*
Nurse's role in diagnosis and treatment of coma and insulin shock; role of nurse, doctor, dietician and psychiatrist in assisting patient to develop healthy mental attitude toward his condition.

368. CARE OF THE PATIENT WITH DIABETES MELLITUS (Uncomplicated) (1944) (Nursing--417) 29 min.* — A II 1 1 OE

Symptoms of diabetes; how nurse teaches patient to administer insulin injections; how to teach patient to regulate diet and make Benedict test for sugar in urine.

369. CARE OF THE SICK AND INJURED (1944-5) 8, 9, 9, 15, 19, 19, 27 min.* — A II 1 S 1 USNAVY

Morning Care. (MN 1511 B). Work of morning hours in typical hospital ward. Techniques to improve morale as well as the well being of patient.
Evening Care. (MN 1511 E). Attention given patients during evening hours, to make patient comfortable.
Post-operative Care. (MN 1511 H). Care and attention necessary for comfort of patient fresh from operating room until he is from under effects of anesthetic and again ready for ward.
Temperature, Pulse and Respiration. (MN 1511 I). Proper way to take temperature, pulse and respiration; necessity for keeping accurate report on each patient.
Surgical Dressings. (MN 1511 S). Techniques of dressing wounds, handling instruments, rubber goods and preparing a dressing cart. Emphasis on necessary teamwork between medical officer and technician in removing sutures, irrigating wounds, handling towels, instruments, etc.
Enemas. (MN 1511 V). Techniques of preparing and giving different types of enemas. Good hospital procedure emphasized. Equipment, preparation, bedside technique, cleaning and sterilizing of equipment.
Chain of Asepsis. (MN 1511 F). Emphasizes necessity of absolute cleanliness in surgical operations. Importance of sterile linens, preoperative preparation of operating room and maintenance of chain of asepsis.
Enemy Bacteria. (MN 1511 L). Necessity for meticulous cleanliness in surgery. Personifies bacteria by means of simplified color animation; shows entry of bacteria into blood stream, action of bacteria, and resultant effect on patient.

370. CARE OF THE SKIN √√ (1949) (Keeping Healthy Series) 11 min. * — A II 2 EBF

Skin hygiene habits demonstrated for children. Three children, preparing for bed, show proper ways to wash hands and face, and to bathe. Common skin ailments illustrated; animated drawings describe skin structure. Why soap is necessary for cleanliness explained.

371. CAREERS FOR GIRLS (1949) 18 min.* — A VI 5 MTFF

Relationship between girl's everyday interests and type of work she might do successfully. Fields open to women. Advisability of early career planning and careful self-auditing.

372. CARNOT CYCLE AND THE KELVIN TEMPERATURE SCALE, THE (1952) (College Physics--Heat and Light Series) 61/2 min. — C VIII McG-H

Four ideal processes constituting Carnot cycle explained and illustrated. Kelvin temperature scale defined. Efficiency of Carnot engine discussed in terms of Kelvin temperature of source and reservoir.

373. CAROTID BODIES AND RESPIRATION (PMF 5113) (1949) 19 min.; color.** — A II 1i USArmy-P

Carotid bodies and control of respiration; carotid sinuses in regulation of blood pressure.

374. CARPENTER, THE (1950) 45 min.; color.* ** — A IX 1 UniBC&J

Members of United Brotherhood of Carpenters & Joiners at work in their various trades in the Pacific Northwest area of the United States; scope of Brotherhood skills, tasks associated with their work.

375. CASTING OF DENTAL GOLD ALLOYS--THERMAL EXPANSION TECHNIQUE (1951) 19 min.; color.* — A II e 5 COM-BS

Accurate fit of dental castings dependent on proper selection and proper use of materials. How to prevent warpage of wax patterns. Selection and attachment of sprue; investing, eliminating wax pattern. Melting and casting alloy.

376. CATALYSIS √√ (1937) 11 min.* — C IV EBF

Catalysis as fourth factor in velocity of chemical reaction. Absorption, activation of molecules; intermediate compounds, chain reaction. Negative catalysts in manufacture of rubber and anti-knock gasoline. Relation of catalysis to plant and animal life.

377. CATARACT EXTRACTION (No. 13) (1936) 11 min.; silent.** — A II lq DG

Intracapsular removal and corneal-scleral suture (Verhoeff). (Dr. William P. Beetham)

378. CATCHING FUNDAMENTALS (1945-6) (Baseball Series, II) 10 min.; also color.* — A V 2 CORONET

Three fundamentals of good catching demonstrated: (1) catching itself, including signals, stance and catching the pitch; (2) throwing to the pitcher and basemen; (3) skill and strategy during game play.

379. CATCHING IN BASEBALL (1947) 11 min.* — A V 2 EBF

Effective techniques for catching thrown, highbatted, groundball, demonstrated. Slow-, stop-motion close-up photography used.

380. CATHODE RAY TUBE -HOW IT WORKS (MN2164a) (1943) 15 min. — C VIII USNavy

Cathode ray tube as means of producing visual image on screen. Breakdown of tube; closeups and animated drawings of filament, cathode, shield, focusing anode, accelerating anode (electron gun). Each phase of electron gun pictured. Function of filament, of focusing anode, of grid. Electrostatic and electromagnetic control. Laws of physics that apply in control. One of a series of three films on the cathode ray tube.

381. CATTLE AND THE CORNBELT (Middle West, United States) √√ (1949) 20 min.* — A IX 1 UWF

People who live and work in level plains regions of the United States produce large quantities of food for peoples of world. During summer months, farmers of midwest grow corn and prepare ensilage to fatten livestock. On plains of far west, grasslands are used for grazing cattle. After first year, animals shipped east to corn belt to be fattened and marketed. Principal stockyards and packing industries. Railroads keep meat supply moving, transporting cattle from ranch to cornbelt to market, and meat and meat products to consumers in all parts of country.

382. CATTLE DRIVE: A DAY ON A WESTERN RANGE (1950) 10 min.* — D I 2 EBF

Cattle drive in Southwest. Cattle movement from range to shipping point; its importance to cattle raising and to maintenance of country's food supply. Work of cowboy during drive and in moments of relaxation.

383. CATTLEMAN√√(1939) 11 min.* — A IX 1 EBF

Life and work of family and hired hands on cattle ranch; mowing, raking, stacking of hay for winter fodder. Duties of cowboys: herding, rounding-up, shipping cattle; branding calves; repairing fences; showing and breaking horses. Cowboy songs at roundup.

384. CAUGHT MAPPING (1940) 10 min. — C V JamH

History of map making. How accurate maps are made and kept up to date. How "road detectives" work on paved highways and on roads under construction. Importance of good road maps as keys to safe and pleasurable travel.

385. CAUSE FOR ALARM√(1950) 13 min.* — A II 7c NSC

Varieties of fire extinguishers demonstrated and explained; how quick alarm and intelligent use of extinguishers may prevent fire damage; importance of knowing how to send in alarm, locate and use equipment, extinguish various kinds of fires.

386. CAUSE, PREVENTION AND EXTINGUISHING OF OIL FIRES 45 min.** — A II 7c ETHYL

Conditions that contribute to oil fires (petroleum industry); how conflagrations may be prevented; how to extinguish such fires when they occur. Correct and incorrect use of several types of fire-fighting equipment illustrated.

387. CAUSES AND IMMEDIATE EFFECTS OF THE FIRST WORLD WAR, THE (1939) 22 min. — A IX 2 IntGP

First world war, from causes in formation of Triple Alliance in 1789 through Treaties of Versailles, St. Germaine, Neuilly, Trianon, and Lausanne; immediate effects.

388. CELL, THE--STRUCTURAL UNIT OF LIFE (1948) 10 min.; also color.* — C II CORONET

Living simple cell presented in microphotography: living moving protoplasm in a leaf cell, amoeba feeding, growing, dividing; functional differences in cell structure.

389. CELLULOSE DECOMPOSITION IN NATURE 30 min.; monochrome; silent.* — C IV IO-R

The cellulose cycle: Large consumption of cellulose through natural decomposition due to activities of organisms, both plant and animal; many forms of life which break down cellulose and return its constituents to soil. Destructive work of bacteria, fungi and protozoans illustrated. Animals whose digestive tracts harbor cellulose decomposing organisms.

390. CENTERING, EDGE GRINDING, AND BEVELING--SPHERICAL SURFACES (1944) (Machine Shop Work--Optical Craftsmanship--185) 27 min.* — A VI 1 OE

How to center lenses by collimator; set up lenses for edge-and bevel-grinding in single spindle or two spindle machine; edge and bevel grind lenses.

391. CENTERING SMALL STOCK (1942) (Machine Shop Work--Bench Work --39) 12 min.* — A VI 1 OE

How to locate center of round, square, and rectangular pieces, using (1) surface plate,

V blocks and surface gage; (2) hermaphrodite calipers; and (3) center head and rule.

392. CENTRAL PARK (1950) A IX 1
10 min. STATE
Views of park in center of New York City; facilities for public enjoyment (zoo, boating, fishing, riding); how residents of every type make use of park in every season.

393. CERVICAL DIVERTICULECTOMY (1947) A II lq THOR
22 min.; color; silent.*
One-stage operation with repair of esophagus over indwelling tube. Intubating tube demonstrates location of diverticulum and mechanism by which food enters sac.

394. CHAMPIONS AT THE WHEEL (1946) A II 7d AETNA
17 min.; color.**
Frequent causes of accidents involving freight-carrying trucks (improper passing, turning and parking); need for alertness, care and timing on part of truck drivers.

395. CHANGING COTTON LAND, THE (Southeast, United States) √√ (1949) A IX 1 UWF
20 min.*
Cotton growing, profitable in warm, dry southeast (U. S. A.) has been principal industry there for more than century. Single crop economy has impoverished land; made it difficult for many people to earn adequate living. Efforts now being made to rebuild land. County agents work with farmers; show scientific ways to improve farm practices and methods of cotton growing. Marked change in region away from cotton economy, toward development of more resources and introduction of new industries, such as cattle raising, dairying, textile manufacturing, and lumbering.

396. CHARGING AND OPERATING A CUPOLA (1944) A VI 1 OE
(Foundry Work--Machine Molding--437)
14 min.*
Identifies and explains purpose of essential parts of cupola; outlines important steps and precautions to be followed in firing, charging, and operating cupola; explains cycle of operations involved in melting process.

397. CHARLES DICKENS: BACKGROUND FOR HIS WORKS (1949) A IV 2 CORONET
10 min.; also color.*
Various London scenes associated with works of Charles Dickens; social settings which he interpreted; places where he lived and worked.

398. CHECKING AND REPLACING A FLOAT VALVE (1944) A VI 1 OE
(Refrigeration Service--445)
19 min.*
Function and action of two basic types of float valves: high-side float and low-side float; how to correct troubles in both types; and to replace high side float.

399. CHECKING THE ELECTRICAL SYSTEM (1944) A VI 1 OE
(Refrigeration Service--446)
17 min.*
How to check and service over-heated motor in domestic refrigerator; stalled capacitor or R.I. motor; motor control disorders; elements of range and differential adjustments.

400. CHECKING THE SYSTEM (1944) A VI 1 OE
(General Procedures Refrigeration Service--438, 439)
34 min.*
Part I. How to install gages in domestic refrigerator; check operating pressures, compressor performance, temperature range of the cooling unit; clean condenser and oil motor of refrigeration unit.
Part II. How to determine causes of several common troubles such as, "unit will not run," "no refrigeration, but the unit runs continuously," and " improper refrigeration of food but unit freezes ice cubes."

401. CHEESE FAMILY ALBUM, THE (1948) A VII KRAFT
31 min.; color.**
Origin and manufacture of certain cheeses, from ancient to modern times; early cheese processing; discoveries relating to cheese varieties; modern laboratory and processing plant; recipes.

402. CHEMISTRY AND A CHANGING WORLD √(1940) C IV EBF
11 min.*
Significant role of chemistry in modern industry; role of research chemist in developing new products; skill of chemical engineer in planning, constructing, operating production plant. Production and use of elemental phosphorus used to illustrate theme.

403. CHESS FUNDAMENTALS (1949) A V 2 YAF
15 min.*
Introducing game of chess, basic purpose and rules governing movements of various pieces.

404. CHILD CARE AND DEVELOPMENT √(1950) A II 4c McG-H
(Child Development Series)
17 min.
Habits of daily physical care as insurance of happy, healthy child. Attitudes and procedures to establish good habits of eating, sleeping, bathing. Elements of good diet considered; proper clothing; psychological influence of clothing on personality development. Outdoor exercise. Importance of attitude toward good routine, stressed.

405. CHILD WENT FORTH, A (1942) 18 min.* — A II 4c BF

Activities of children (two to seven) in camp, in conditions as primitive as is consistent with safety, develop self-reliance and independence by living together with as little supervision as possible. General progressive education techniques.

406. CHILDREN IN TROUBLE (1947) 10 min.* — A VI 2 NYYOUTH

Problem of juvenile delinquency. Causes and prevention. (See "Families First", a sequel.)

407. CHILDREN MUST LEARN (1940) 17 min.* — A I 1 NYFL

How change in school study programs in southern (U.S.A.) rural community (impoverished by exhaustion of soil) effects community by teaching children how to improve soil and to grow foods necessary to balanced diet and health.

408. CHILDREN'S EMOTIONS √ (1950) (Child Development Series) 22 min. — A II 4c McG-H

Major emotions of childhood: curiosity, fear, anger, jealousy, joy. Characteristics of children's emotion: intensity, short duration. Causes of children's emotions; how to deal with causes and effects.

409. CHILDREN'S VILLAGE √√ (1947-8) 19 min.* — A I 5e RKO

In Children's Village hundreds of delinquent boys receive fighting chance to become good citizens. Situated at Dobbs Ferry, New York, village operates by letting young members run it along their own lines; they have their own mayor, police chief, magistrate, treasurer and their own small businesses. Supervision by adults: competent social workers, doctors, psychiatrists.

410. CHILDREN'S ZOO (1950) 10 min.; — A IX 1 STATE

Children's Zoo and Farm, part of Bronx Zoo, New York City, combining entertainment and education, teaches city children about nature while they play with animals.

411. CHOLECYSTOJEJUNOSTOMY (1951) 15 min.; color; silent.* — A II 1q THOR

Antecolic anastomosis performed, utilizing interrupted cotton technic throughout, which procedure may be used as palliation for inoperable carcinoma with jaundice or as first stage of pancreaticoduodenectomy. Liver biopsy demonstrated.

412. CHOOSING BOOKS TO READ (1948) 10 min.; also color.* — A I 2 CORONET

High school student's experience show aids generally available to assist in selection of a book for purposeful reading: book lists, book reports, library shelves, librarian's advice, etc. Student's interest gradually broadened by wise selection.

413. CHOOSING FOR HAPPINESS (1950) (Marriage Series) 14 min. — A VI 4 McG-H

Dramatized story suggesting self-analysis in relation to possible mates and acceptance of the other's basic attributes.

414. CHOOSING YOUR OCCUPATION (1949) 10 min.; also color. — A VI 5 CORONET

Self-appraisal, occupational possibilities, preparation requirements, guidance facilities integrated for benefit of vocational guidance classes and conferences.

415. CHORDS AND TANGENTS OF CIRCLES √√ (1948) (Practical Geometry Series) 12 min.* — C VII 3 KB

Perpendicular to a chord within a circle; types of tangents.

416. CHOREA (1944) (Neuropsychiatric Disorders Series) 10 min.; silent.* — A II 4 d SPGood

Various types of chorea in twelve cases; patients demonstrate characteristic clinical features. Chronic group includes Huntington's, arteriosclerotic, senile and postencephalitic types; acute illustrated by case of Sydenham's chorea.

417. CHUCK WORK (1944) (Machine Shop Work--Turret Lathe--213, 214) 38 min.* — A VI 1 OE

Part I. How to use power chuck; set up tools for internal cuts; for multiple cuts; and set up feed stops for hexagon turret.
Part II. How to set up tools for square turret; to make combined cuts; set cross-slide and carriage stops; set up speed preselector; to perform a sequence of operations efficiently.

418. CHUCKY LOU (1948) 11 min.; also color.* — C I 1 IND

Story of woodchuck in Indiana State Park which entertains visitors by performing tricks. Characteristics of woodchuck, its habits; its adjustment to captivity.

419. CHURCH VOCATIONS (1949) 11 min.* — A VI 5 MAHNKE

Varied types of work in modern church. Minister, head of his institution; he must finish years of college and preparatory work before he is ready to accept call. His varied responsibilities and duties. Home and foreign missionary work; church secretarial and social service.

420. CINEMICROGRAPHY OF PROTEUS VULGARIS (1949) — A II 1c SAB
13 min.; silent. *
Time-lapse film by dark contrast phase-microscopy: normal growth of Proteus vulgaris on nutrient agar and effect of presence of penicillin in agar. Apparatus shown. Some cells observed to multiply by binary fission; others disintegrate. Characteristic swarming of proteus. (Prof. R. J. V. Pulvertaft, England)

421. CINEPLASTIC OPERATION (PMF 5062) (1947) — A II 1 q USArmy-P
16 min.; color. **
Attaching cord to selected muscle and then to prosthetic appliance so that patient can operate appliance by contracting muscles in amputation stub.

422. CIRCLE, THE (1947) √√ — C VII 3 KB
(Practical Geometry Series)
12 min. *
Radii, diameters, chords, tangents, secants, arcs, central angles presented and explained; theorems and proofs introduced.

423. CIRCULATION (1950) — C II UWF
(Human Biology Series)
16 min.; also color.
Animated diagrams of human body, complete with circulatory system, used to describe systemic and pulmonary circulation of blood. Structure and functions of heart, lungs, arteries, veins and capillary network described; route of blood through body, heart cycle, exchange of oxygen and carbon dioxide in air sacs of lungs and in cells of body.

424. CIRCULATION IN THE FETUS AND IN THE NEWBORN (1949) — A II 1q SturG
9 min.; color. *
Differences in circulation during fetal life and in life after birth; role of the placenta in fetal circulation; dependence of fetus on maternal body. Changes in circulatory system at term; lungs of baby begin to function. Degrees of oxygenation shown throughout film by differences in red and blue color of different vessels. (Dr. George H. Humphreys II)

425. CIRCUS ANIMALS (1947) — A IX 1 ACAD
11 min.; also color.
How circus animals are cared for, fed, watered, trained and transported.
For children.

426. CIRCUS DAY (1949) — A IX 1 BARR
22 min.; color.
Circus train arrives; animals and wagons unloaded. "The Lot." How tents are set up; teamwork. How performers make ready. The Midway. The Show.

427. CIRCUS DAY IN OUR TOWN (1949) — A IX 1 EBF
16 min. *
Excitement and drama of circus day; highlights of performance. Preparations necessary for staging; circus animals in spectaculor acts; acrobats and clowns.

428. CIRCUS PEOPLE (1948) — A IX 1 ACAD
11 min.; also color.
How circus people live and work together; unloading circus wagons, setting up tents; the circus kitchen, dining tent, etc. For children.

429. CITIES--HOW THEY GROW √√ (1952) — A IX 1 EBF
11 min. *
Natural influences affecting location and growth of cities: harbors, water courses, accessibility of raw materials, climate. Animated maps showing gradual growth of American city from trading center to modern metropolis. Current trends in city development; advantages of decentralization and careful city planning.

430. CITIES: WHY THEY GROW (1949) — A IX 1 CORONET
10 min.; also color. *
How a city is built; some foci around which city may develop: university, state capitol, recreation facilities, steel industry, water power, transportation "breaking point"; how city dies when source of income dries up; how to analyze city growth.

431. CITIZEN FIREMEN (1951) — A IX 1 MTFF
19 min. *
Typical American community's volunteer firemen: their training and effort protect life and property from fire.

432. CITRUS IN NUTRITION (1943) — A III 3 UWF
20 min.; color. *
Value of citrus fruits in balanced diet; how dietetically inadequate meals are brought into balance; seven basic food requirements, and how citrus fruits help supply them; packing house treatment; recipes.

433. CITRUS ON PARADE (1938) — D I 3 UWF
15 min.; color. *
Oranges from tree to home; picking, packing house operations, peeling and sectioning; use in various recipes.

434. CITY FIRE FIGHTERS (1947) — A IX 1 CORONET
10 min.; also color. *
What happens when fire alarm sounds; fireman demonstrates fire fighting equipment; takes spectator through station; stresses young fire fighter's responsibility in controlling and preventing fires.

435. CITY OF THE SICK (1950) A II 4a
20 min. * ** OHIO
Attendant in mental hospital learns for himself in working with mental patients how they can be restored to useful living. Technique of managing recalcitrant patients through persuasion instead of force. Policy of emphasizing help for, rather than control of, mental patients.

436. CITY WATER SUPPLY √√ A II 3a
(1941) EBF
11 min. *
Man's dependence on water for life; problems involved in obtaining adequate safe city water supply. Basic water sources. Specific sources available to New York City. Filtration; chlorination.

437. CLAY IN ACTION (1950) E X
11 min. * EBF
Arturo B. Fallico shows how to make portrait in clay from first application of clay to armature to finished work, employing essentials: basic measurements, simplicity of tools, creation and refining of principal planes, artist's individual interpretation of his subject.

438. CLEAN WATERS (1946) A II 3a
20 min. ; color. * GE
Importance of natural waterways; dangers of pollution to fish, wildlife; to city supply systems, recreational facilities and public health. Made in cooperation with the United States Public Health Service.

439. CLEANING AND SERVICING A VI 1
THE PRESS (1944) OE
(Plastics--473)
12 min. *
How to disassemble heating cylinder; clean cylinder, hopper, and feeder mechanism; give entire press routine cleaning; prepare scrap material for re-use.

440. CLEANING MILK PLANT A VI 1
EQUIPMENT AND CONTAINERS USPHS
(1946)
(Small Milk Plant Operation Series)
27 min. **
Satisfactory methods for cleaning and bactericidal treatment of cans, bottles, piping, and other equipment in milk plant. Accepted routine of flush, scrub, rinse, sterilize. Cans washed by hand; milk bottled by hand; mechanical washer.

441. CLEANLINESS AND HEALTH A II 2
(1948) CORONET
10 min. ; also color. *
Importance of germs and micro-organisms; germs related to disease. Disinfectants. How germs grow. Useful, beneficial germs. How germs enter human body; contact with corpuscles. How germs may be kept out. Functions of skin. Importance of soap; how it cleanses.

442. CLEANLINESS BRINGS A II 2
HEALTH (1950) STATE
9 min. ; color.
Health and personal cleanliness of a happy, healthy family contrasted with those of a sick careless family; how simple sanitary precautions and personal hygiene keep one family healthy and how careless habits cause illness in other family.

443. CLIMBING ABILITY OF A II 3a
NORWAY RATS (4-057) (1948) CDC
3 min. **
Climbing ability of Norway rats depicted. Why rat-proofing should be carried beyond first floor in all buildings.

444. CLIMBING PLANTS (1950) G III
(Botany Series) UWF-GB
10 min. *
How weak-stemmed plants support themselves; sharp-thorned climbers, leaf-holding creepers, aerial-rooted ivy, tendril clinging pea.

445. CLINICAL MANIFESTATIONS A II 1 a
OF PARALYSIS (PMF 5089) USArmy-P
(1948)
10 min. ; color. **
Clinical manifestations of paralysis in various portions of the body shown by comparison of normal and paralyzed areas.

446. CLINICAL USE OF A II 1 q
HYALURONIDASE √√(1951) WYETH
33 min. ; color. **
Clinical use of hyaluronidase, elective adjunct to administration of parenteral fluids, local anesthetics, and other drugs.

447. CLOCKING A CHAMPION A II 1 1
(1939) NYH
10 min. ; color. **
Daily routine of normal, healthy infant. Approved methods of baby care as adapted and practiced by individual mother and father who cooperate to keep their son on schedule.

448. CLOSED BOOK, A (1950) A II 7b
26 min. ** FarmBI
Dramatized story of a safety campaign which moved a community to "close the book on accidents."

449. CLOSE-UP OF NYLON (1951) A VII
22 min. ; color. ** DUPONT
Properties of nylon staple and continuous filament yarns. Construction of nylon when used alone in fabrics; or in combination with other fibers. Effect of fabric construction on warmth or coolness, porosity and drying time of fabrics. Relation of proper heat-setting to fabric stability, need for ironing and permanent pleats.

450. CLOUDS (1939) C VIII
14 min. ; also 35 mm. ** Com-WB
Types of clouds; their significance. Progress

of complete weather cycle; action of warm and cold fronts. Njerknes cyclone model.

451. CLOUDS ABOVE, THE (1948) C VIII JHUNT
10 min.; also color.
Significance of four main types of clouds. Absorption of water by air and process of condensation. How these processes are involved in formation of clouds and precipitation of rainfall.

452. CLUTCH AND HAND BRAKE, THE (1944) A VI 1 OE
(Automobile Operation and Maintenance--482)
12 min. *
How to determine amount of clutch pedal clearance or lash; correct abnormal clutch pedal lash; check clutch for slipping, grabbing or drag; inspect and adjust hand brake.

453. COARCTATION OF THE AORTA (1948) A II 1q BURKE
25 min.; color. *
Embryology, anatomy, physiology of coarctation of aorta; clinical features, roentgen findings; surgical treatment. Resection of a coarctation with end to end anastomosis; roentgenograms. Patient three months after operation.

454. COELENTERATA AND CTENOPHORA C II IO-R
30 min.; color; silent. *
Reel I. Some common representatives of closely related phyla. Single hydranth of Tubularia in detail; terminal portion of Obelia magnified to fill screen. Metridium demonstrates activity of tentacles and mouth during feeding, and contraction longitudinal muscles upon stimulation. Structure of ctenophore beroe. Iridescent ciliary combs; internal structure. Reel II: Hydroid Clava magnified to show main features of external morphology. Haliclystus, with marginal adhesive pads and stalked suction disk, in contrast to background. Tentacles and sensory notches of Cyanea and Aurelia; peculiar swimming activity of these jelly fishes. Retractile polyps of Alcyonium illustrate coelenterate closely related to corals. Cerianthus demonstrates slime tube as protective case.

455. COLLECTION OF ADULT FLIES, THE (4-085) (1949) A II 1 r CDC-UWF
6 min.; color. **
Procedures used to catch flies with sweep net, fly trap, and cone net; these methods best suited, respectively, for rapid surveys, for detailed qualitative studies, and for collecting live flies over natural attractants.

456. COLLEGE TRAINING FOR DENTAL ASSISTANTS √√ (1950) A I 1 ScieFC
11 min.; color; also silent. *
How the training of graduate dental assistants is conducted in two year college training program at Morton Junior College, Cicero, Illinois.

457. COLLOIDS (1937) C IV EBF
11 min. *
Concept of colloidal suspension; particle size; types of colloids; different from true solutions. Coagulation; filtration; sedimentation. Tyndall effect; Brownian movement; cataphoresis; Cottrell process.

458. COLONIAL CHILDREN √ (1939) A IX 1 EBF
(Children of Many Lands Series)
11 min. *
Home life and self-sufficiency of New England colonial family, late seventeenth Century; authentic settings, costumes, furnishings. How children were educated by homestudy; duties and chores of each family member; vital role of religion.

459. COLONIAL EXPANSION (1942) A IX 1 EBF
11 min. *
Trend of expansion in North America, 1492 to Revolutionary War. Animated maps showing struggle for dominance by English, French, Spanish. Economic development of various colonies. Political significance of each major phase of expansion to 1763.

460. COLOR AND LIGHT (1952) E III UCLA
7 min.; color. *
Principles of additive and subtractive color processes (demonstrated by animation) in relation to white light. Prisms, colored mediums, use of primary and secondary colors. Principles used in summation on model stage set.

461. COLOR CATEGORIZING OF RHESUS MONKEYS (1943) A II 4c CORONET
10 min.; also color. *
Psychological study, part of research project in brain disorders. How adult male and female monkeys and a baby monkey were taught to sort objects by size, color and shape.

462. COLOR CHANGES IN FISH AND SQUIDS C II IO-R
13 min.; monochrome; silent. *
Two contrasting types of pigment mechanisms. Killifish fundulus in various color phases. Pictures (taken with lens extension tubes and through microscope of body surface of fish) show distribution of melanophores, xanthophores, and iridosomes; and of pigment cells in isolated scales. Example of commonest type of color change mechanism (by means of migrating pigment within hollow, branching processes); control both nervous and humoral. Different method of changing body color characteristic of the cephalopod mollusks.

463. COLOR CHANGES IN FROGS AND CRUSTACEANS — C II IO-R
17 min.; monochrome; silent. *
Mechanism of color changes in larval and adult frogs, and in shrimp. Animals adapted to black and to white backgrounds to bring about extreme conditions of pigment migration. Series of cinemicrographs showing individual chromatophores in all stages of pigment dispersion. Time-lapse pictures demonstrate flow of pigment within branching processes of pigment cells. Demonstration of technique of injecting pigment-concentrating hormone derived from crustacean eye stalk, to illustrate humoral control of pigment migration and to explain how these animals change color.

464. COLOR KEYING IN ART AND LIVING (1951) — E VIII EBF
10 min.; color. *
Study of color relationships; abstract demonstrations of color deceptions followed by practical applications. Color relations applied to art subjects; to hair, eyes, complexion, dress; and home decoration.

465. COLORADO RIVER, THE (1947) — C V CORONET
10 min.; also color. *
Colorado River traced from Rocky Mountain source to Gulf of California; how building Boulder Dam made water flow constant and nearly uniform; River as source of electric power, water for irrigation.

466. COLORADO--VACATIONLAND SUPREME (1939) — A IX 1 ROCK
25 min.; color. **
Vacation opportunities in Colorado; scenes of Rocky Mountain National Park, Pike's Peak, the cities of Denver and Colorado Springs; other points of interest.

467. COLOSTOMY CLOSURE (END TO END ANASTOMOSIS) (PMF 5001) (1947) — A II 1 q USArmy-P
9 min.; color. **
Surgical repair of upper abdominal colostomy.

468. COMBAT EXHAUSTION (PMF 5012) (1945) — A II 1 q USArmy-P
52 min. **
Various phases of treatment of neuropsychiatric disorders in a theatre of operation.

469. COMBINED ABDOMINO-PERINEAL RESECTION (No. 332) (1938) — A II 1q DG
35 min.; color; silent. **
Operation (one stage) for carcinoma of rectum (Dr. Fred W. Rankin)

470. COMEBACK (1946) — A II 6 OVR
27 min. **
Processes of vocational rehabilitation: surgery, medical care, physical therapy; vocational guidance; training and employment.

471. COMING HOME (1950) — A II 1 p NatTbA
15 min.; also 35 mm. **
How one family successfully combatted a case of tuberculosis; importance of mass X-ray survey; discovery, treatment and cure of tuberculosis; socio-economic problems of patients' families; value of chest X-ray in discovering disease when it can be most easily cured.

472. COMMON ANIMALS OF THE WOODS √√ (1943) — C II EBF
11 min. *
Common animals (U. S. A.) in natural habitats: squirrel, rabbit, raccoon, porcupine, otter, mink, beaver, opossum, skunk, woodchuck.

473. COMMON COLD, THE √ (1949) — A II 2 EBF
11 min. *
Facts about common cold, its care; secondary infections that may grow out of it. Why common cold is serious; how it should be treated.

474. COMMON DUCT EXPLORATION AND DRAINAGE WITH CHOLECYSTECTOMY (1950) — A II 1q THOR
15 min.; color; silent. *
Exploration with removal of stones from common duct followed by T-tube drainage of common duct and retrograde cholecystectomy.

475. COMMUNICABLE DISEASES √√ (1949) — A II 1d CUTT
35 min.; color. **
Communicable diseases discussed: measles, rubella, scarlet fever, chicken pox, small pox, epidemic cerebrospinal meningitis, murine typhus, poliomyelitis, infectious mononucleoses, tetanus, pertussis, and diphtheria. Differential symptomatic characteristics emphasized and illustrated by actual patients. Measures for prevention and cure.

476. COMMUNITY ADVISORY SERVICE (1949) — A I 5a STATE
27 min.
Advisory service organized and operated by people of Bridgeport, Connecticut; how it helps individuals solve personal problems, using community resources. Case studies of industrial workers and war veterans; how they overcome physical disabilities, obtain suitable jobs, training, financial assistance, and other help.

477. COMMUNITY CANNING √ (1943) (Farm Work--Food Preservation--198) — A III 3 OE
17 min. *
How to wash, snap, grade, blanch, and season beans; how to prepare cans, pack and exhaust them; how to label and seal cans; how to use a pressure cooker, or retort; how to cool, dry, and store cans.

478. COMMUNITY FLY CONTROL (1950) — A II 3a CDC-UWF
16 min.; color. **

Part I. (4.090) (9 min.)--Fly Control through Basic Sanitation. How basic sanitation can help eliminate flies in community fly control program. How flies breed in open garbage cans, in open garbage dumps, and around open pit privies, wherever there is filth, warmth, moisture, and undisturbed condition of breeding medium. Basic sanitation, foundation of all successful fly control operations. What community program in basic sanitation should provide for or enforce in urban and in rural areas.
Part II. (4.110) (7 min.)--Spraying Equipment and Procedures. Effectiveness of space spraying equipment in community fly control programs. Exterior space spraying for control of adult flies in large areas; no residual effect. Frequency of spraying in clean residential areas; in substandard and business areas; periodic measurements of fly density to show where and how often spraying operations are required.

479. COMMUNITY PROBLEM, A (1950) — A II 3 a — CateT
13 min. **
Use of heavy earth moving equipment in disposal of garbage by sanitary land fill method; other systems compared.

480. COMMUNITY RESOURCES IN TEACHING (1950) — A I 1 — IO
19 min. *
"Our Town", typical community where people live, work, worship and play. Resources of community: business and professional people; community as laboratory for learning. Social studies class takes up study of communications. Trip to local newspaper plant to clarify certain problems. How to organize best learning experience. Results of visit to newspaper plant. How resource-use program brings many civic, professional, business and other groups into the school.

481. COMMUNITY WORKSHOP (1949) — A V I — STATE
20 min.; color.
Craft Students' League of New York, where persons interested in crafts as hobby meet, work together, share interests. Hobbyists shown working with clay and metals; sculpture, pottery, jewelry, and metal design.

482. COMMUTATION OF D-C MACHINES (1945) — A VI 1 — WestH
24 min.; also 35 mm. **
Theory and maintenance of commutation direct-current generators. Possible causes of trouble; how to prevent; what to do when trouble develops.

483. COMPLETE DENTURES--ALGINATE IMPRESSIONS (MN-6720) (1951) — A II 1 e 5 — USNavy
17 1/2 min.; color.
Technic for nonpressure full denture impressions, using alginate (irreversible hydrocolloid) in loose-fitting, perforated baseplate tray.

484. COMPLICATED AMPUTATIONS--CASE REPORTS (PMF 5026) (1946) — A II 1 q — USArmy-P
50 min. **
Cases of multiple amputations, their management; ingenious prostheses developed for them.

485. COMPLICATED EXODONTIA--INTRODUCTION (MN-6722) (1951) — A II 1 e 7 — USNavy
17 1/2 min.; color.
Fundamental procedures involved in successful removal of all teeth. Particular attention to teeth requiring more than use of forceps for proper extraction. Basic principles underlying a proposed plan for treatment.

486. CONCRETE (1949) — A VI I — UofC
30 min.
Principles of trail-batch method of proportioning concrete. Monolithic slab construction; typical ready-mix concrete plant; strength requirements. Laboratory procedure to be followed in designing mix for particular purpose. Handling and placing in actual construction work. Recapitulation of principles governing successful use of concrete in construction.

487. CONCRETE DITCHING FOR MALARIA CONTROL (4-046) (1949) — A II 3a — CDC
7 min.; color also. **
General principles involved in construction of concrete ditch. How poor drainage systems result in accumulation of bodies of stagnant water providing breeding places for malaria-carrying mosquitoes, thereby threatening high incidence of malaria in community. Unsightly appearance of community resulting in lowered property values, lowered farming efficiency, lowered income and standards of living. High and widespread adult mosquito counts render repetitive larviciding uneconomical. Concrete-lined ditches best practical solution. Steps in ditch construction. How completed permanent concrete drainage system corrects previous detrimental conditions; resulting improved living standards more than repay original construction cost.

488. CONFESSIONS OF A COLD (1940) — A II 2 — NMP
10 min.; also 35 mm. *
Symptoms of common cold; effects of colds. How to combat: by rest, drinking fluids, proper ventilation of sick room, attention of a physician to relieve discomfort and guard against complications, proper disposal of discharges from mouth and nose, and sterilization of dishes used by sick person. Various ways in which colds may be spread: careless sneezing or coughing, kissing, and use of common

drinking cup. Chilling and quick changes in body temperature and indoor crowds (during epidemics) to be avoided; dress should be appropriate for environment. Strict attention to personal cleanliness and proper diet, desirable.

489. CONGRUENT FIGURES√√(1947) C VII 3
(Practical Geometry Series) KB
12 min. *
Geometric principles for finding and proving that triangles with equal sides, equal angles or combinations of both are equal and congruent.

490. CONNECTING AND ADJUSTING A VI 1
CONTROLS (1944) OE
(Airplane Maintenance--Aircraft Maintenance--260)
19 min. *
How to inspect and adjust elevator and rudder control cables; to line up and safety turnbuckle; to remove and replace damaged aileron control cable; to adjust it for proper aileron travel.

491. CONSERVATION IN ACTION A VIII
(1950) F&WS
11 min.; color. **
Habitat needs of salmon, waterfowl, buffalo, mountain goats and other wild creatures; how the Fish and Wildlife Service of the United States Government (Department of the Interior) meets these needs and manages renewable resources in United States waters and on land.

492. CONSERVATION OF NATURAL D I 5
RESOURCES√√(1937) EBF
11 min. *
Results of wastage of forests; erosion; depletion of mineral resources; killing of wild life. How wastage may be prevented; plans to prevent it and conserve resources.

493. CONSERVATION ROAD: THE A IX 1
STORY OF OUR NATURAL TwC-FF
RESOURCES (1946)
(The World Today Series)
18 min. *
Importance to United States of conservation of: wild life, forests, agricultural lands, through maintenance and restoration of balance of nature; and mineral resources through increasing effective use of each irreplaceable unit.

494. CONSTRUCTING A SANITARY A II 3a
PIT PRIVY (4-083) (1949) √ CDC-UWF
15 min.; color. **
How unsanitary privy contributes to transmission of intestinal disease. Step by step construction of simple sanitary pit privy, illustrating fundamental principles of sanitation: proper drainage and complete sealing. How sanitary privy helps eliminate menace of diseases originating in poor sanitation.

495. CONSTRUCTION OF A 138 KV D II
UNDERGROUND TRANSMISSION LAWP
LINE (1950)
25 min.; color. **
Steps in installation of underground electric cable in large city, from "opening" of a street through splicing operations which are demonstrated in detail.

496. CONSTRUCTION OF SCREW A II 1 q
LOCK SPLINTS AND BONE USArmy-P
GRAFT CASES (PMF 5073) (1947)
17 min.; color. **
Jaw bone injuries and treatment including making casts of upper and lower jaw, casting mold, drilling screw holes, application of splints, grafting of bone, insertion of bone.

497. CONSUMER PROTECTION (1948) A VII
10 min.; also color. * CORONET
Family which buys on basis of price and appearance alone, often makes foolish purchases; another which takes advantage of information available from both government and private consumer services, is protected in buying and enjoys improved standards of living.

498. CONSUMPTION OF FOODS B IV
(1946). EBF
11 min. *
Minimum standards of food consumption in terms of energy requirements and balanced diet; regional deficiencies located and analyzed; possible methods to raise world food consumption by increasing land productivity, raising individual purchasing power, solving distribution problems.

499. CONTAMINATION OF WATER A II 3a
SUPPLIES BY BACK UMINN
SIPHONAGE (1936)
20 min.
Bad-tasting drinking water in public school found to be contaminated by a faulty plumbing arrangement, resulting in back siphonage. Circumstances illustrated in laboratory model.. Partial vacuum creates suction draining waste from improperly designed plumbing fixtures into the water supply for drinking. This condition in several types of fixtures; proper corrective measures.

500. CONTOUR FACE MILLING A VI 1
(1944) OE
(Machine Shop Work--Horizontal Boring Mill--227)
17 min. *
How to set up job; align workpiece square with spindle; make rough-facing cut; finish-facing cut.

501. CONTROL OF BODY C II
TEMPERATURE√√(1940) EBF
(The Human Body, Series 2)
11 min. *
Mechanism of body-temperature regulation

explained. Constant temperatures of warm-blooded animals contrasted with fluctuating temperatures of cold-blooded animals. Relationship of body heat to energy furnished by foods; bloodstream as heat distributor. Body-heat loss and regulation by radiation, conductivity, evaporation. Hypothalamus.

502. CONTROL OF FILARIASIS IN TAHITI√ √(1950) — A II 1d USoCal
15 min. ; color. *
Work done under filariasis research and control program set up in 1948 by French Colonial Medical Service and School of Medicine, University of Southern California. Symptoms, treatment, method of transmission and prevention techniques of filariasis and elephantiasis in Tahiti; how native technicians fight against germ-carrying mosquito and instruct Tahitians in hygienic methods; treatment for advanced forms of disease.

503. CONTROL OF HOUSEHOLD INSECTS (TF 8-1468) (1948) — A II 3 USArmy-P
19 min. **
Effective methods of controlling household insects in mess halls and barracks; housefly, cockroach and bedbug. Effects of infestation, discomfort, lowered moral and disease.

504. CONTROL OF LOUSE-BORNE DISEASES (TF 8-1467) (1946) — A II 3 USArmy-P
16 min. **
Control of louse-borne diseases through personal and barracks sanitation; use of DDT and other insecticides.

505. CONTROL OF MOSQUITO-BORNE DISEASES (TF 8-1495) (1948) — A II 3 USArmy-P
19 min. **
Army, Navy and Air Force personnel cooperating in research and control of mosquito-borne diseases. Proper clothing and equipment needed for spraying and destroying breeding places of carriers of malaria, dengue, brain fever, and filariasis.

506. CONTROL OF TONSIL HEMORRHAGE (1942) — A II 11 BURKE
15 min. ; color; silent. *
Suggested routine for resident and nursing staff in care of tonsil hemorrhages; locating bleeding and ligating vessels.

507. CONTROL OF VOLUNTARY MUSCLES--SOME PRINCIPLES OF KINESIOLOGY (1943) — A II 1a NU
27 min. ; color; silent. *
Model with unusual control of selective voluntary muscle action and animated drawings used to demonstrate action of certain voluntary muscles and muscle groups: musculi frontalis, auriculoses, biceps brachi, triceps reflex; quadriceps femacis. Structure of shoulder girdle; arrangement of muscles with insertions at the scapula. Relation of respiratory movements of diaphragm to abdominal muscles. Effect of closure of glottis and simultaneous respiratory movements on diaphragm and abdominal muscles. Action of rectus.

508. CONTROL YOUR EMOTIONS (1950) — A II 4c CORONET
13 min. ; also color. *
Psychological concepts applied to emotional control; stimulus-response pattern; methods of changing stimulus or response; emphasis on self-control.

509. CONVALESCENT CARE AND REHABILITATION OF PATIENTS WITH INJURY TO THE SPINAL CORD (PMF 5015) (1946) — A II 1 1 USArmy-P
41 min. ; color. **
Approved diagnostic, surgical, nursing, and physical medicine technique and practices pertinent to care and rehabilitation of paraplegic patients.

510. CONVEYING AND MEASURING IRRIGATION WATER (1932) — D I 1 USDA
22 min. ; silent; also 35 mm. **
Devices and procedure for measuring, proportioning and conveying irrigation water to farm lands, to avoid waste, extend supply and assure equitable distribution. Value of soil tests.

511. CONVULSIVE AND ALLIED CONDITIONS (1944) (Neuropsychiatric Disorders Series) — A II 4d SPGood
11 min. ; silent. *
Eleven patients with convulsive and allied conditions; points of differentiation between them with special reference to their etiology: generalized tic or maladie des tics, generalized myoclonic movements following acute epidemic encephalitis, myoclonus epilepsy (Unverricht), palatal myoclonus, catalepsy, narcolepsy associated with cataplexy, convulsive state in hypoglycemia, Jacksonian seizures (due to cerebral neoplasm), convulsions of psychogenic origin.

512. COOKING: KITCHEN SAFETY (1949) — A III 3 YAF
11 min. *
Safety hazards common to every kitchen, specific examples of each; simple precautions that can be taken to prevent accidents in kitchen.

513. COOKING: MEASURING (1949) — A III 3 YAF
11 min. *
Why some experienced cooks do not appear to

follow precise measurements; why most cooks, particularly those with limited experience, must be very careful in measuring. Some of the commoner measuring devices used in kitchen; correct procedures for measuring typical dry solids, liquids, and fats.

514. COOKING: PLANNING AND ORGANIZATION (1949) A III 3 YAF
11 min. *
Illustrates a well ordered kitchen in which housewife has organized kitchen equipment and cooking utensils for greatest ease and efficiency in work. What can happen when preparation of a meal is attempted without adequate planning; how trouble can be avoided by planning and use of such devices as the time-chart.

515. COOKING: TERMS AND WHAT THEY MEAN (1949) A III 3 YAF
11 min. *
Some misused and misunderstood terms employed in cooking; their meaning. Desirability of understanding terminology used in cooking recipes.

516. COOLING SYSTEM AND FUEL SYSTEM, THE (1944) A VI 1 OE
(Automobile Operation and Maintenance--464)
22 min. *
How to check for leaks in cooling system; how to check fan and water pump; mechanical operation of the carburetor; filters and vents; fuel pump; leakage in the fuel system.

517. COOPER'S LIGAMENT HERNIORRHAPHY (1948) A II 1q BURKE
15 min. ; color; silent. *
Ligament herniorrhaphy for indirect hernia associated with direct hernia. Modification of McVay technique; transverse skin incision.

518. COPPER--MINING AND SMELTING (1950) D II EBF
11 min. *
Open pit copper mine in operation; main steps in extracting copper from ore: Blasting, loading and disposing of waste rock, loading ore in railroad cars, crushing and washing. Work of miners at various mine tasks.

519. CORN BORER, THE (1950) D I 4 IOSC
11 min; color. *
Life cycle of first and second broods of corn borer; methods of control.

520. CORN FARMER√ √ (1939) D I 1 EBF
11 min. *
Work of typical corn farmer: planting, cultivating, harvesting. Problems of crop rotation, haying, hog and cattle raising, marketing. Contrast of machine and hand methods of farming. Typical rural activities, including livestock auction.

521. CORRALLING THE COLORADO (1951) D I 1 RECLAM
27 min. **
Problem presented by the Colorado River (Southwestern United States): floods, droughts, fertile but arid land through which water wasted to the sea. How plan to control Colorado River was conceived, presented to people, approved and carried into effect through democratic procedures. Building Hoover Dam; how it works with Davis Dam, Parker, Headgate Rock and Imperial Dams to convert the Colorado River from a national problem into a national resource.

522. CORROSION (1946) C IV
14 min. ; color. ** AlleLud
Invisible film mechanism by which stainless steels resist corrosive attack (animation).

523. CORROSION PROOF (1949) C IV
12 min. ; color. ** AlleLud
Electro-chemical testing shows how stainless steels resist corrosive attack.

524. COTTON√ (1946) D I 3
(Clothing and Shelter Series) EBF
11 min. *
How cotton is picked (southern United States), ginned, baled, shipped; cleaned, fluffed, carded, spun, woven into cloth.

525. COTTON--PICKING AND GINNING (1948) D I 3 PHP
11 min. ; also color.
Story of cotton from field to mill; hand and machine methods of crop picking; how fiber is ginned, classified, compressed, stored and transported to domestic and foreign markets. Slow--motion photography of actual ginning process.

526. COTTON PLANTING (1948) D I 3
11 min. ; also color. PHP
Story of cotton from seed to harvest. Methods of developing a new seed variety shown; preparation of soil, planting, cultivating, weeding, spraying fields with insecticides; defoliating mature plants before harvesting begins.

527. COUNSELING--ITS TOOLS AND TECHNIQUES (1948) A VI 5 MAHNKE
22 min. ; also color. *
Fundamental techniques teacher needs in counseling situations. Central setting of film in a high school; counselor helps high school boy in solution of important problem: good counseling in action.

528. COUNTERSINKING, COUNTERBORING, AND SPOT FACING (1942) A VI 1 OE
(Machine Shop Work--Drill Press--48)
20 min.*
Methods and sequences followed when countersinking, counterboring, spotfacing on vertical drill.

529. COUNTY AGENT, THE (1945) A VIII
17 min. STATE
Role of Government through county agricultural agent in improving rural life in America. How he helps farmers with problems of land use, crop and livestock production; his personal relationship with people he serves.

530. COUNTY AND COMMUNITY RECREATION IN ACTION (1951) A V 2 IND
29 min. *
Case histories of three county-wide recreation programs. Arrangements for financing recreation program. Why trained leadership is necessary. Benefits of organized recreation to individual participants and to community. Activities appropriate to all ages, interests, seasons.

531. COUNTY FAIR (1946) A IX 1
22 min. ; color. ** IntHar
Young people preparing for, attending, participating in "county fair"; how 4-H Club stimulates youth to learn by doing, improving products and methods of home and farm; county fair competition and judging of entries.

532. COUNTY GOVERNMENT (1949) A VIII
28 min. STATE
County government in Westchester County, New York; election of county officials; activities and services of legislative, executive, and judiciary branches; interrelation of county, state, and federal governments; relation of people of county to people of all nations in United Nations.

533. COVERING HOT AND COLD PIPES (1943) A VI 1 OE
(Shipbuilding--Pipefitting--109)
22 min. *
Purpose of insulation; methods and tools used in applying various types of insulating materials; how to prepare paste and cut and paste canvas; types of stitches and how to use needle for sewing canvas; how to cover flanges; types of materials used to cover cold pipes.

534. COW AND ITS RELATIVES, THE (1941) C II CORONET
10 min. ; also color. *
Views of relatives of domestic cow in native habitats: Indian zebu; Tibetan yak; African kudu, eland, antelope; American buffalo.

535. COWBOY, THE (1949) A IX 1
10 min. ; color. BARR
Cowboy dress explained; how cowboy saddles horse. Various gaits of horse; how horse is controlled. Roping calf. Horse's part in handling cattle; interdependence of man and horse. Rodeo tricks.

536. CRAFTS OF THE FIRE (1946) A V 1
10 min. Also 35mm. * AF
The use of fire in the making of crystalware, stained glass, enamel, china, porcelain and pottery.

537. CRANBERRY STORY, THE (1950) A VII NaCran
30 min. ; color. **
Cranberry raising from preparation of bog through planting, cultivation, harvest cooperative marketing and canning; recipes for use of cranberries.

538. CRAWLING AND CREEPING (1942) A II 4c IntFB
14 min. ; silent. *
Normal development sequence of crawling and creeping in human infant.

539. CRAYFISH (1949) C II
(Zoology Series) UWF
10 min.
Animals with exo-skeleton. Outer body shown in close-up; locomotion and feeding. Analysis of reproductive systems; processes of feeding and digestion described and arterial and nerve systems traced.

540. CREATION OF A PORTRAIT (1950) E VIII EBF
11 min. ; color. *
Essential steps in creation of representative portrait by A. G. Warshawsky, shown making beginning sketch with color and brush; he follows through, laying in broad planes of color; gradual development of form in portrait with constant reference to model. Use of glaze over painting.

541. CREATIVE DESIGN IN PAINTING (1938) E VIII KATZ
12 min. ; silent. *
Organization of lines and areas within rectangle; application of design principles to painting landscape in watercolors.

542. CREATIVE LEISURE (1950) A IX 1
20 min. STATE
How Americans spend their leisure time in pursuit of the arts. Choral groups; hobbies and crafts; drama societies; music appreciation, concerts, record collections; participation in bands, etc.

543. CRIMES OF CARELESSNESS (1947) A II 7c NaBFUn
10 min. ; also 35 mm. **
How extensive loss of life and property results from preventable fires.

544. CRIMINAL AT LARGE (4-102)√ (1945) A II 1r CDC
13 min. ; also color. (Freeze frame cartoons and drawings) **
Life cycle of Anopheles quadrimaculatus; how malaria is spread.

545. CRYSTAL OF ENERGY (1948) D I 1
30 min. ; color. SugReF

Production and processing of sugar from cane and beet plants, from field to refinery to table; importance of proper nutrition to good health; some collateral uses of sugar in non-food products; such as drugs, chemicals, and cosmetics.

546. CULTIVATE YOUR GARDEN BIRDS (1950) C II UMINN
10 min. ; color.
Study of neighborhood bird life; nesting habits, feeding habits and habitats of common garden birds (magnolia warbler, brown thrasher, oriole, blue jay, rose-breasted grosbeak, catbird, cardinal, cedar wax wing, hummingbird, morning dove, robin, fly catcher, house wrens, sand piper).

547. CUMMINGTON STORY, THE (1946) B VIII STATE
20 min.
Assimilation of European war refugees into life of small New England village. Their introduction to community by local clergyman; gradual growth of understanding between newcomers and townspeople.

548. CURIOSITY SHOP (1948) C VIII
30 min. ; color; also 35 mm. ** ALCOA
Importance of research in aluminum industry; basic and applied research differentiated. How aluminum is separated from impurities by heat; use of electroplating in dying aluminum; prevention of corrosion; various uses of aluminum. (Sequel to Unfinished Rainbows, which see).

549. CURIOUS COATI, THE (1946) C II
8 min. * YAF
Adventures of a pair of coatis (or coatimundi, small Central and South American animal related to racoon.)

550. CURRENT FLASHES (1938) A VI 1
10 min. JamH
Part electricity plays in modern life; how generating plants adapt themselves to shifting loads and emergency conditions; generators in use in radio stations, motion picture theatres, ships, trains, power plants, automobiles. Function of automobile generator and battery explained; various uses of and necessity for electricity in an automobile.

551. CURVE CONTROL (1938) A VI 1
10 min. JamH
How various types of vehicles are steered. Steering principles governing different numbers of wheels investigated; various types of steering mechanisms explained. Geometric principle of revolving cone shown as it applies to any wheel tilted at angle to plane on which it rolls. Practices of steering demonstrated; how wobbling and weaving on bumpy road are eliminated.

552. CURVES OF COLOR (1941) C VIII
10 min. ; color. * GF
Sir Isaac Newton's experiments and discovery of visible spectrum; electro-magnetic spectrum. Sun as source of color; accurate color recognition, importance in industry. Recording photo-electric spectrophotometer explained; how device records color by its curve.

553. CUTTING A DOVETAIL TAPER SLIDE (1944) A VI 1 OE
(Machine Shop Work--Vertical Milling Machine--73)
26 min. *
How to machine dovetail taper slide on vertical milling machine; use rotary table in milling taper; and mill to layout lines.

554. CUTTING A KEYWAY ON END OF FINISHED SHAFT (1942) A VI 1 OE
(Machine Shop Work--Shaper--19)
13 min. *
Use of shaper in cutting keyway in steel shaft. How to select cutting tools; secure work in vise; set length, position, and speed of ram stroke.

555. CUTTING A ROUND END KEYWAY (1944) A VI 1 OE
(Machine Shop Work--Vertical Milling Machine--74)
22 min. *
How to cut round end keyway in steel shaft; align spindle and workpiece by using test bar; use two-lip end mill to sink hole in solid stock; set trip dogs and table stops; and check finished dimensions of round end keyway.

556. CUTTING A SHORT RACK (1944) A VI 1 OE
(Machine Shop Work--Milling Machine--208)
18 min. *
How to set up and align workpiece on milling machine table; position table and workpiece in relation to cutter; and rough--and finish--mill the work piece.

557. CUTTING A TAPER WITH THE COMPOUND REST AND WITH A TAPER ATTACHMENT (1941) A VI 1 OE
(Machine Shop Work--Engine Lathe--8)
11 min. *
Animation and demonstration on lathe show the correct method for setting compound to cut steep taper; how to set taper attachment for cutting taper of 1 1/2" per foot.

558. CUTTING AN EXTERNAL ACME THREAD (1942) A VI 1 OE
(Machine Shop Work--Engine Lathe--45)
16 min. *
Shows work being mounted on mandrel, and placed between centers on lathe. How to set lathe gears for cutting thread; how to cut thread with and without using threading dial.

559. CUTTING AN EXTERNAL NATIONAL FINE THREAD (1941) (Machine Shop Work--Engine Lathe--10) 12 min. * — A VI 1 OE

Various shapes of threads: their uses; characteristics of the National Fine Thread; procedure used to cut such a thread on a lathe.

560. CUTTING AN INTERNAL ACME THREAD (1943) (Machine Shop Work--Engine Lathe--56) 22 min. * — A VI 1 OE

How to set up lathe and cut an internal right-hand acme thread; to grind and check stocking and forming tools; to set threading tools to work; how to gage finished threads.

561. CUTTING AN INTERNAL TAPER PIPE THREAD (1944) (Machine Shop Work--Engine Lathe--57) 20 min. * — A VI 1 OE

How to use taper attachment when cutting internal pipe threads; bore tapered hole to gage size for threading; how to thread tapered hole to fit gage; compute pipe thread dimensions.

562. CUTTING AND BONING A FOREQUARTER OF BEEF (1944) (Farm Work--Meat Cutting--456) 19 min. * — A III 3 OE

How to chill and quarter beef; trim the forequarter; cut wing, crosscut check, brisket, and chuck; prepare meat for freezing or canning.

563. CUTTING AND BONING A HINDQUARTER OF BEEF (1944) (Farm Work--Meat Cutting--457) 17 min. * — A III 3 OE

How to separate the round from loin and rump; cut the round; remove the tenderloin; separate sirloin and rump from shell loin; prepare meat for freezing or canning.

564. CUTTING AND THREADING PIPE BY HAND (1943) (Shipbuilding--Pipefitting--106) 12 min. * — A VI 1 OE

Types of fittings and their use; use of pipe vise; cutter and hacksaw; swedging and its removal by reaming; selection and use of dies; proper threading and pipe thread taper.

565. CUTTING AND THREADING PIPE ON A POWER MACHINE (1943) (Shipbuilding--Pipefitting--107) 17 min. * — A VI 1 OE

Function and principal parts of power pipe threader; proper use and care of dies and cutting tools; proper lubrication; shows swedging effect and removal by chamfering; how to correct thread that is too large.

566. CUTTING COVE MOLDING AND A CORE BOX (1944) (Woodworking--Variety Saw--311) 19 min. * — A VI 1 OE

How to select stock for cove molding; cut and rip cove molding; select proper blade for oblique cutting; and cut deep hollow.

567. CUTTING GROOVES WITH CIRCULAR SAW BLADES (1944) (Woodworking--Spindle Shaper--320) 22 min. * — A VI 1 OE

How to set up machine to cut grooves; cut grooves in stiles, rails, and for splines; and cut stop channels in mirror frame members.

568. CUTTING KEYWAYS (1941) (Machine Shop Work--Milling Machine--12) 15 min. * — A VI 1 OE

How to set up shaft on table of milling machine for cutting keyway at each end.

569. CUTTING TEETH ON A WORM GEAR (1944) (Machine Shop Work--Milling Machine--211) 17 min. * — A VI 1 OE

How to set dividing head for specified indexing; position workpiece for gashing; gash teeth on workpiece; position workpiece under dead center of hob; and mesh gashed gear with hob and hob teeth.

570. CUTTING TENONS AND SEGMENTS (1944) (Woodworking--Variety Saw--308) 15 min. * — A VI 1 OE

How to lay out and cut tenon; prepare jig to trim and miter segments; guide jig, using sliding miter gage.

571. CUTTING THREADS WITH TAPS AND DIES (1942) (Machine Shop Work--Bench Work--34) 19 min. * — A VI 1 OE

Methods, operations, and procedures for cutting small threads with hand taps and dies; how to use a hand die to cut threads on a stud to fit in the tapped holes.

572. CUTTING WITH CARBIDE TOOLS (1944) (Machine Shop Work--Carbide Tools--244, 245) 34 min. * — A VI 1 OE

Part I. Single Point. How to machine on a lathe, using a single-point carbide tool; how to correct unsatisfactory machining. Part II. Milling Cutters. How to determine feed, speed, and depth of cut; set up the workpiece and position cutter; face mill a workpiece; reduce high power consumption.

D

573. D. C. MOTOR √ (1944) — A VI 1
Mechanical Overhaul (Electrical Work--Motor Maintenance and Repair--392, 3) — OE
20, 37 min. *
Part I. How to test for electrical and mechanical faults; dismantle D. C. motor; turn commutator; repair and replace field coils; assemble motor; adjust and make final tests. Part II. How to dismantle and clean armature core; determine commutator pitch; reinsulate core; insert coils; band armature; shape coil ends; lay in and solder leads; balance armature; impregnate armature; and turn commutator.

574. DAFFODILS (1944) — C III
3 min.; color. — UnitSp
Varieties of daffodils (from one garden).

575. DAIRY FARM (1942) — D I 2
15 min.; also color. * — CORONET
On small dairy farm in midwestern United States, farmer works cultivating, harvesting, and storing feed crops; dairymen feed cows, milk them. Prepare milk for market; children help with family chores and learn active routine of life on a dairy farm.

576. DAIRY INDUSTRY, THE √√ (1942) — A VI 5
11 min. * — MAHNKE
Work involved in producing, processing and marketing products of dairy farm. Jobs on dairy farm in care of cattle, operation of milking and separator machines, sterilizing and getting milk to market. Why knowledge of animals and cost accounting are important. Dairy plant operation, product processing and marketing: jobs for butter makers, cheese makers, government laboratory testers, technicians, dairy superintendents, managers, feed experts, etc.

577. DANCE (1946-1950) — E II
12 1/2 min. (each reel); color; silent. * — Mansfield
Vol. I. Body Mechanics and Fundamental Movement: (A) Rhythmic Movement (60 exercises for individual); (B) Exercises for Group.
Vol. II. Contemporary Dance: (A) American Dancers and Choreographers: Louis Horst, Doris Humphrey, Charles Weidman, Hanya Holm, José Limon, Harriette Ann Gray, Perry-Mansfield students. (B) Young American Dancers: Robin Gregory, Harriette Ann Gray, Eleanor King, Valerie Bettis, Iris Mabry and students.
Vol. III. Integration of Dance and Drama: (A) Exercises for the Actor-Dancer; impressions; symbolism. (B) Vain Shadow, Valerie Bettis; Electra, Eleanor King; Four Walls, Merce Cunningham, Leora Dana, Julie Harris; Brigadoon, Robin Gregory; Blood Wedding, Mary Hinkson; The Nut Tree, Julie Harris, and Leora Dana.
Vol. IV. Cowboy Squares: (A) Hold Your Holts and Swing Like Thunder; Take a Little Peek; Varsoviana; Fireman's Dance; Cielito Lindo. (B) American Indians of the Southwest: Zuni and Acomas, Harvest Dance; Tesuque Eagle Dance; San Ildefonso Harvest Dance; San Juan Rain Dance; Taos War Dance; Santa Clara Rain Basket Dance; Cochiti Parrot Dance; Santa Fe Fiesta.
Vol. V. A Day in Training: (A) Body mechanics, ballet, beginning and advanced modern dance techniques, shorts of Doris Humphrey, Hanya Holm, Valerie Bettis, Harriette Ann Gray. (B) Modern Dance at Perry-Mansfield, 1950.

578. DANGER IS YOUR COMPANION (1947) — A II 7
17 min. * — ARC
Accidents in homes, at work, at play, on farms, on highways; what is being done to combat carelessness and to train people to give emergency first aid.

579. DANGER POINT, THE (1943) — A II 3
12 min.; color. ** — PCCI
Role of health department in guarding health of community; seasonal prevalence of respiratory infections; efforts of department to control such infections by means of isolation, immunization, and breaking channels of infection. How eating utensils may serve as channel of infection by which respiratory diseases are spread in public eating and drinking places, dramatized. Importance of sanitation in home and sick room. Need for good wholesome food.

580. DANGER SLEUTHS √√ (1940) — A II 7a
14 min. * — RKO
How appliances and equipment (electric clock, blanket, iron and vacuum cleaner, pressure cooker, waffle iron, etc., glass in automobiles, building materials, safes, etc.) are tested (Underwriters Laboratories) for safety to avoid accidents in the United States.

581. DANNY'S DENTAL DATE (1949) — A II 2
20 min.; color. — ColPH
Puppets show types of teeth; various kinds of food recommended for dental health. Danny visits dentist's office where simple filling is done; process explained. Proper tooth brushing technique demonstrated with supersized tooth brush.

582. DASHES, HURDLES, AND RELAYS (1938) — A V 2
18 min. * — EBF
Accepted methods of starting, sprinting, hurdling, baton passing. Dashes analyzed. Form in hurdles illustrated. Use of lanes; fight for inside position. Slow-motion photography utilized.

583. DATE CULTURE IN THE UNITED STATES (1947) — D I 3 PHP
11 min.; also color.
Date growing in the Old World; New World methods of propagation, fertilization, cultivation, irrigation, pollination, pest control, harvesting, grading, fumigating and packing.

584. DATELINE TOMORROW (1946) — A VI 1 ALCOA
19 min.; also 35 mm. **
Various finishes for aluminum (mechanical, chemical, electrochemical, electroplated, organic); how these finishes are applied. How they may be used in homes and industry.

585. DATES (1944) — D I 3 HFE
12 min.
History of date culture. Dates as crop in California. How date palms are pollenized, cared for during growth; how fruit is harvested and packed.

586. DAY AND NIGHT √√ (1949) — C I UWF-GB
10 min. *
A globe rotating in space explains why day and night, and why sun appears to rise in east and set in west. How rotation of earth on tilted axis results in variations in length of day and night over world at different times of year.

587. DAY AT THE FAIR (1947) — D I 2 EBF
11 min. *
Three youngsters exhibit their calves and pigs at a state fair; how they tend their livestock, watch judging, see displays.

588. DAY IN THE LIFE OF A FIVE YEAR OLD, A (1949) — A I 1 TCCU
20 min. *
Young children interpret world about them in spacious, well-planned and equipped kindergarten setting; role of teacher in guiding them through happy, meaningful and satisfactory day. Growth-stimulating activities for kindergartners illustrated.

589. DDT AS A MOSQUITO LARVICIDE (4-035.2)√(1947) — A II 3a CDC-UWF
17 min. **
How spray solution may be mixed; structure and operation of typical sprayer; field methods of applying; simple but require specific techniques for ponds, clear and overgrown ditches. Factors in correct application of required poundage of DDT per acre; concentration of spray mixture, swath width, wind speed, sprayer air pressure and sprayer wand movement.

590. DEATH VALLEY--ANCIENT AND MODERN (1949) — A IX 1 PHP
22 min.; color.
Death Valley from the ice age to date; discovery of borax; modern developments of the valley. Famous beauty spots shown.

591. DECIMAL FRACTIONS (1948)√ (Series on Fractions) — C VII 1 JHUNT
11 min.
Meaning of word "decimals". Significance of the decimal point. Two place decimals. Use of zero.

592. DECK, THE: SETTING A WEB FRAME AND A TRANSVERSE BEAM (Shipbuilding--Shipfitting--29) (1942) — A VI 1 OE
17 min. *
Cooperative work of shipfitter and shipwright in setting and fitting web frame and transverse beam; procedures used in locating necessary shiplines, in squaring by 6-8-10 method, in shifting web frame into correct setting.

593. DECK GIRDERS: SUB-ASSEMBLY (Shipbuilding--Shipfitting--28) (1942) — A VI 1 OE
15 min. *
Work of shipfitter in sub-assembling deck girder; location and purpose of deck girders; procedures used in laying off deck girders.

594. DECK PLATES: REGULATING AND SETTING (1942) (Shipbuilding--Shipfitting--33) — A VI 1 OE
16 min. *
Cooperative work of shipfitter and shipwright in setting, fairing, regulating, and fitting deckplates of ship; explanation of strakes, types of joints, use of various tools necessary to move plates into correct position.

595. DECLARATION OF INDEPENDENCE, THE (1938) — A IX 1 TFC-Warner
19 min.; color. *
Portrayal of meetings in Philadelphia in 1776 which resulted in writing of the Declaration of Independence of the United States of America by Jefferson, Franklin, John Adams, and their colleagues; struggle for its adoption, particularly Jefferson's role.

596. DECORATIVE METAL WORK (1940) — A V 1 BF
10 min.; also silent (15 min.)*
Articles made from different metals shown. Technique of designing and constructing metal art work illustrated in making metal bracelet, from planning to completion of bracelet.

597. DEEP DIVING--THE DIVING DRESS (MN 105b) (1944) (Deep Diving Series) — A VI 1 USNavy
32 min.
Work of deep diver; equipment and skill required. Parts of diver's suit presented and explained; how to put on suit; testing of life line, air hose, telephone, prior to diving; how suit is removed.
This is one of four films in series on physical and mental effects of deep diving; need for careful physical examination; the bends; safety precautions; techniques of diving; shallow water diving.

598. DEER AND ITS RELATIVES, THE (1946) C II CORONET
10 min.; also color. *
Wide adaptations of members of same family to conditions in various parts of world: white tailed deer, fallow deer, elk, bactrian camel, dromedary camel, alpaca, llama, giraffe.

599. DEFENDING THE CITY'S HEALTH √√ (1941) A II 3 EBF
11 min. *
Major health problems confronting modern city; programs and services provided to meet them: public health nursing, sanitation, laboratories, child hygiene, communicable disease control by cooperation among private physician, family and city health department.

600. DEFENSE AGAINST INVASION (1950) A II 1j STATE
13 min.; color.
Value of immunization against disease explained in dramatic story: represented as invading army; immunization as defense.

601. DEFENSIVE FOOTWORK IN BASKETBALL (1946) A V 2 EBF
11 min. *
Correct stance; parallel movement; stride; correlation of arm movement with footwork, turning, pivoting, assuming position for taking ball on rebound. Slow motion and close-up photography used.

602. DEFINITION OF THERBLIGS (1942) A VI I PURDUE
Projection time as desired (participational, 160 ft.); silent. *
Twenty numbered sequences, each illustrating a therblig, to help instructor define therbligs to trainees by defining beginning, contents and end point of each therblig.

603. DEMOCRACY (1946) A VIII
11 min. * EBF
Meaning of democracy presented in analysis of four major concepts: Shared respect; shared power; economic balance; enlightenment.

604. DEMOCRACY'S DIARY √√ (1948) B VI 1
16 min. RKO
Story of journalism in United States; how news is gathered from over the world; how sent to city desk for checking; through linotype machine and make-up room to column of newspaper. Circulation department; speed essential to bring late news to doorstep of America as soon as possible, in answer to demand for latest information.

605. DENTAL AMALGAM--FAILURES CAUSED BY A MOISTURE CONTAMINATION (1948) * A II 1 e 5 COM-BS
Contamination with moisture, common cause of amalgam failure. Contamination by mixing amalgam in palm of hand; by condensing amalgam in wet field. How moisture reacts with alloy to produce hydrogen gas which causes excessive expansion, lowers compressive strength, forms blisters. Contamination of amalgam evidenced by postoperative pain, extrusion of alloy from cavity, blisters, faulty margins, fractured restoration. Satisfactory technique for prevention of contamination, described and illustrated.

606. DENTAL ASSISTANTS--THEIR EFFECTIVE UTILIZATION (1951) A II 1 e 6 USPHS
20 min.; color.
How use of trained assistants permits dentist to focus attention on significant aspects of treatment, so increasing his service to patients and community, and reducing his weariness and fatigue at end of day.

607. DENTAL HEALTH (TF 8-2096) (1945) A II 1 e 6 USArmy-P
24 min. **
Dental care and hygiene; prevention of gum diseases; care of dentures; chewing food.

608. DENTAL HEALTH--HOW AND WHY (1949) A II 1e6 CORONET
10 min.; also color. *
Review of what research and experimentation have done to promote better dental health for American public; diet and its relation to growth and decay of teeth; new sodium fluoride applications; techniques of oral hygiene.

609. DENTAL RESIN (1949) A II 1 e 5
18 min.; color. * COM-BS
Effect of impurities, pressure, temperature, rate of curing, duration of curing, mold surfaces, water content on dimensional accuracy and stability of dentures made from acrylic resins. Denture processing techniques demonstrated.

610. DENTURE SERVICE (1937) A II 1e 5
45 min.; color; silent. * UMINN
Mouth survey; upper impression technic; lower stabilized impression technic; bite-taking.

611. DESCRIBING AN INCIDENT (1946) A IV 1 CORONET
10 min.; also color. *
Incident poorly described; same incident interestingly, completely, colorfully described.

612. DESERT DEMONS (1933) (Battle for Life Series) C II TFC
9 min. *
American desert animals: tortoise, owl, king snake, horned toad. Quiet all day, they venture forth at night. Their life activities and struggles for survival.

613. DESERT PEOPLE (1942) A IX 1
25 min.; color. USIndS

Story of the Papagos Indians who live on the desert because they like it; how in extremely dry region they manage to farm a little, raise cattle, and find use for nearly every growing thing.

614. DESIGN FOR ARC WELDED STRUCTURES (1945) A VI 1 LincEC
15 min.; color. **
Stages of man's progress in structural design; how welded design permits new freedom in planning, reduces steel tonnage, simplifies detailing, fabrication and erection. How various structural shapes can be combined to improve design and cut costs. Tension members, beams and compression members studied; crane beams, girders, columns; tubular construction and rigid frame design for efficient use of materials and improved appearance.

615. DESIGN OF AMERICAN PUBLIC EDUCATION√ (1952) A I 1 McG-H
(American Public Education Series)
16 min.
Operation of "assembly line" education processes compared and contrasted with educational process tailored to needs of young people today. Decentralized, locally elected educational procedures; curriculum fitted to community needs. Creation of inquiring minds, development of democratic ideals, and qualities of leadership; realization of complete individual ready to assume individual place in society.

616. DESIGN TO MUSIC (1949) E VII
(Creative Hands Series No. 1) IntFB
5 1/2 min.; color. *
Interpretation of music moods with color. Children draw their ideas to music.

617. DESIGNING A PATTERN FOR A WATER-COOLED MOTOR BLOCK (I) (1944)√ (Patternmaking--Problems in Patternmaking--337) A VI 1 OE
15 min. *
How patternmaker studies drawing for single-cylinder water-cooled motor block; visualizes shape of casting, plans general shape of pattern, checks on core support, plans core boxes.

618. DESIGNING A SET√ (1951) E III
(Drama Series) * IntFB
11 min.
From initial conferences between designer and director and technicians, through completion of set. Steps demonstrated in sketching, making model, etc. Close collaboration emphasized.

619. DESIGNING CORE BOXES FOR A WATER-COOLED MOTOR BLOCK (II) (1944)√ (Patternmaking--Problems in Patternmaking--338) A VI 1 OE
12 min. *
How patternmaker visualizes water jacket, port cores, and core in mold; designs ram-up core and set-up core.

620. DESIGNING MACHINERY FOR ARC WELDING (1948) D II LincEC
20 min.; color. **
Functional approach to machine design described; various materials compared; load factors, stresses, rigidity, performance and appearance studied. How welded design permits new freedom of planning, speeds, fabrication, reduces weight, gives greater strength and rigidity from less material.

621. DESPERATE HEART, THE (1950) E II BF
11 min. *
Valerie Bettis in dance solo. Music by Bernardo Segall; poem by John Malcolm Brinnin.

622. DESPOTISM (1946) A VIII
11 min. * EBF
Meaning of despotism presented in analysis of signs and conditions: Restricted respect; concentrated power; slanted economic distribution; controlled information.

623. DESTRUCTIVE INVADER, A (1947) D I 5 USDA
13 min.; also color, **
Importance of pine forests of eastern Washington, panhandle of Idaho and western Montana; menace of blister rust. Efforts made to control the disease.

624. DEVELOPING FRIENDSHIPS (1950) A VI 4 CORONET
10 min.; also color. *
How "teen-ager" learned to be a friend; how new attitude led him to appreciate and enjoy persons of many varying backgrounds and personalities.

625. DEVELOPING IMAGINATION (1950) A II 4 c CORONET
10 min.; also color. *
How to develop imagination in four steps: (1) concentrate on purpose, (2) recall relevant images, (3) create new image using parts of relevant images, and (4) check new image against original purpose.

626. DEVELOPING LEADERSHIP (1948) A VIII CORONET
10 min.; also color. *
When flood struck Greenview, Bill knew what to do. With enthusiasm, vision, and imagination, with readiness to assume responsibility, he directed a job which was well done. Leadership qualities demonstrated.

627. DEVELOPING RESPONSIBILITY (1949) A VI 2 CORONET
10 min.; also color. *
Responsibilities often entail hard work, diffi-

cult decisions, and missing out on some fun; rewards, both material and spiritual, more than compensate; planning and determination contribute to fuller, happier life.

628. DEVELOPING SELF-RELIANCE (1951) — A VI 2 CORONET
10 min.; also color.*
How developing self-reliance depends on assuming responsibility, being informed, establishing objectives, making decisions.

629. DEVELOPING YOUR CHARACTER (1950) — A VI 2 CORONET
10 min.; also color.*
How good character can be achieved; character-building influences of home, church, school, and friends.

630. DEVELOPMENT AND BEHAVIOR OF THE WHITE RAT (1940) — A II 4c IntFB
9 min.; silent.*
Physical and behavioral developments of white rats from birth to three months of age. Sensory and motor activities of young illustrated for various age levels. Maternal care and nesting behavior of adult shown.

631. DEVELOPMENT OF COMMUNICATION √√ (1942) — B VI EBF
11 min.*
Traces development of modern methods of communication, including telegraph, telephone, wireless, radio. Volta, Watson, Henry, Morse, Bell, Marconi, De Forest. Speed of modern communication.

632. DEVELOPMENT OF THE CHICK (1948) (Zoology Series) — C II UWF
10 min.*
Examination of early stages of embryonic development through third day. Formation of allantois, limb buds, and rapid growth and development of embryo. Hatching observed and growth of chick to maturity.

633. DEVELOPMENT OF TRANSPORTATION √√ (1939) — A IX 1 EBF
11 min.*
Development of transportation in the United States. How natural barriers which originally compelled isolation were overcome. Economic and social significance of modern transportation facilities in international intercourse.

634. DEVELOPMENT OF ZEBRA FISH EGG (1944) — C II WISTAR
16 min.; silent.*
Blastodisk formation and streaming of endoplasm into disk. Periodic movements of non-fertile egg. Cleavages, gastrulation and involution of disk cells to form germ ring. Periodic locomotion of granules in large blastomeres. Embryogenesis; a 48-hour and a newly hatched 72-hour fish.

635. DIABETIC GANGRENE (1942) — A II 1q BURKE
15 min.; color; silent.
Clinical-pathological study of lower leg lesions complicating Diabetes Mellitus, including cellulitis, bunions, ulcerations from varicose veins, infection with exposure of tibia. Two types of amputation, using circular flaps without use of tourniquet; dry gangrene case with guillotine amputation using tourniquet, demonstrating detailed method of refrigeration anesthesia. X-rays, dissection of specimen, microscopic findings.

636. DIAGNOSIS OF PERIPHERAL NERVE INJURIES, THE (PMF 5118) (1949) — A II 1 a USArmy-P
16 min.; color.**
Significant clinical findings of twelve cases of various nerve injuries.

637. DIAGNOSIS OF SURGICAL LESIONS OF THE ALIMENTARY TRACT, THE (PMF 5177A) (1951) — A II 1 o USArmy-P
20, 21 min.**
Part I: The Primary Examination. History taking, physical examination, laboratory procedures by medical officer. Patient with symptoms referable to alimentary tract. Tentative diagnosis of malignant disease of sigmoid colon; sigmoidoscopic examination and chemical test for occult blood in stools. Part II: Technique and Apparatus. Utilization of more formidable diagnostic procedures; fluoroscopy, roentgenography, cytologic study, and biopsy. Case of achalasia of esophagus, and case of carcinoma of stomach.

638. DIAPHRAGMATIC HERNIA: TRANSTHORACIC APPROACH (1949) — A II 1 q BURKE
15 min.; color; silent.*
X-ray of stomach, patient in supine Trandelenburg position; diaphragmatic hernia revealed. Fascia lata to be used in repair, removed from thigh. Oblique incision over eighth rib; phrenic nerve crushed; esophagus dissected free; hernial sac exposed. Transthoracic approach permits free exposure and utilization of full thickness of diaphragm for repair.

639. DIARY OF A SERGEANT (MF 1129) (1945) — A II 6 USArmy-UWF
22 min.** P
How one soldier who had lost his arms was able to regain his place in normal happy living. How he mastered problems confronting him in learning to use artificial appliances.

640. DIE CASTING (1943) — A VI 1 NJZinc
30 min.; color.**
How die castings are made; properties of

alloys used; details of die casting machine; importance of die casting to mass production of metal objects.

641. DIESEL ENGINE, THE (MN 42a) (1942) (Diesel Engine Series) 29 min. — A VI 1 USNavy

An introductory survey film: How ignition may be achieved by compression; basic Diesel engine types; forms of air headers for fuel injectors.
This is one film of many films and filmstrips on the construction, operation and maintenance of Diesel engines of various American makes.

642. DIESEL ENGINE AND THE IDEAL DIESEL CYCLE, THE (1952) (College Physics--Heat and Light Series) 6 1/2 min. — C VIII McG-H

Intake stroke, compression stroke, combustion, power stroke, valve exhaust, exhaust stroke in Diesel engine cycle explained. Ideal Diesel cycle plotted. Factors affecting efficiency discussed.

643. DIESEL, THE MODERN POWER (1939) 21 min. ** — C VIII GenM

How Diesel engine works. Principles of four-cycle and two-cycle types. Wartime use of Diesel engine in tanks and landing craft. How Polynesian tribesmen produced fire by compressing air. Simplified Diesel engine put together piece by piece; non-technical explanation of function of each part. Future of Diesel power.

644. DIGESTION (1950) (Human Biology Series) 33 min. ; also color. * — C II UWF

Part I: Mechanical and muscular processes involved in digestion of food. Animated diagrams used to show: structure and functions of alimentary canals; peristalsis in esophagus, small intestine and colon; muscular movements of stomach wall; absorption of food, water, salts into blood through walls of small intestine and colon.
Part II: Chemical changes involved in digestion of three main types of foods (carbohydrates, proteins, fats). Secretion and action of saliva; of gastric, pancreatic and intestinal juices; of bile on each type of food. Entire digestive process diagrammed to show absorption and storage of digested or simplified substances in body.

645. DIGESTION OF FOODS √√ (1938) (The Human Body, Series 1) 11 min. * — C II EBF

Processes of digestion in mouth, stomach, small intestine; mechanical aspects (mastication, swallowing, stomach contractions, intestinal segmentation and peristalsis). Chemical reactions of digestive juices in foods. Absorption of digestive products into bloodstream.

646. DIMPLING AND COUNTERSINKING (1944) (Sheet Metal Work--Assembling and Riveting--139) 21 min. * — A VI 1 OE

How dimpling and countersinking prepare metal for flush riveting; how to operate dimpling machine; and countersink work for flush rivets.

647. DINNER PARTY (1945) 23 min. ; also color. * — A VI 4 S-M

Practical approach to table etiquette instruction. Contrasts employed to emphasize reason for and advantages of correct table manners.

648. DIODE, THE (1944) (Engineering--Electronics --176) 17 min. * — D II OE

Principles of electron flow across a gap; basic features of diode tube; control of electron flow in tube; photoelectric cells; X-ray tubes; diode as a rectifier.

649. DIRECT CURRENT CONTROLLERS √ (1944) (Electrical Work--Motor Control--388) 15 min. * — C VIII OE

Shunt motors and direct current controllers in operation; direct current faceplate controller connected to shunt motor shown in animation.

650. DIRECTING TECHNIQUES √ (1951) (Drama Series) 11 min. * — E III IntFB

Work of director in presentation of play: first reading of script, first rehearsal; stages at which different problems arise. Relationship of character to character, need to feel and achieve purpose of play.

651. DIRT CHEAP (1949) 26 min. ; also color. * — D I 1 VaDeptE

Soil conservation: specific problems and conditions. Road back to continued soil prosperity through soil conservation. Place of education in conservation. Cooperation of Government agencies, communities and individuals.

652. DISASTER CONTROL (1951) 20 min. — A II 7c McG-H

Importance of preparedness against disaster (fire, flood, sabotage, atom bomb). Role of Coordinator of Plant Defense. Importance of communications. Value of decentralization and duplication. Test drills. (Addressed to management of industrial plants).

653. DISCOVERY AND EXPLORATION (1942) 11 min. * — A IX 2 EBF

Discovery and exploration of North America (1492-1700). Three important motivations: search for new trade route to Far East; for riches; for beaver territory. Animated maps show routes of pioneer explorers.

654. DISCUS (1947) A V 2
10 min. * UWF
Principle of centrifugal force; development of muscles for side arm throw; proper grips; finger roll; heel of thumb pressure; finger exercises; development of clockwise spin; hip snap; reverse and non-reverse styles.

655. DISCUSSION IN DEMOCRACY (1948) A VIII CORONET
10 min.; also color. *
Through expert advice and its own experiences, a typical group of students learns importance of discussion in democracy. Film develops three-fold program for democratic discussion: (1) Preparation, (2) planning, (3) personalities.

656. DISEASE--THE UNHUNG RUSTLER (1950) A II 1 s CUTT
36 min.; color. **
Eight common range diseases of cattle: anthrax, brucellosis, anaplasmosis, screw-worms, red water, pink eye, shipping fever, blackleg-malignant edema. Their causes, complications, treatment and prevention.

657. DISEASES OF THE EAR, NOSE AND THROAT (1948) A II 1n JHMF
28 min.; color; silent. *
Normal ear drum, anterior nasal chamber, postnasal space, pharynx, larynx, tracheo-bronchial tree and esophagus. More common types of pathology seen in these areas. (Drs. P. H. Holinger, K. C. Johnston, and George Anison)

658. DISEASES OF THE ESOPHAGUS (1946) A II 1o JHMF
23 min.; color; silent. *
Technic of esophagoscopy and esophagoscopic appearance of more common types of esophageal pathology, including lye strictures, diverticuli, foreign bodies, cardiospasm, and carcinoma. X-ray pictures and short clinical descriptions. (Dr. P. H. Holinger)

659. DISHWASHER NAMED RED, A A VI 5 GPP
10 min.; also color. *
Sanitary hand-dishwashing in restaurants illustrated, demonstrating major equipment required; action shown around three-compartment sink.

660. DISHWASHING CAN BE EASY (1951) A III StaCWa
8 min.; color. *
Study of dishwashing procedures discloses three rules: work from right to left, use proper equipment, use both hands in process.

661. DISHWASHING DIVIDENDS (Revised 1952) A VI 1 EL
28 min.; color. * **
Modern mechanized scientific dishwashing from conclusion of a restaurant customer's meal to clean dish table. Suggestions as to auxiliary equipment, dish-handling, sanitation. Dishwashing machines in operation.

662. DISTANCE RACES (1938) A V 2
10 min. * EBF
Form and style in racing; in steeplechase. Style of distance runner contrasted with that of dash man. Correct techniques in start, stride, foot and leg action, body motion and inclination; finishing spurt. Slow-motion photography utilized.

663. DISTANCES (1947) A V 2
10 min. * UWF
Importance of style; development of stamina; calisthenics; avoidance of shin splint; controlled tension; forward knee reflex; straight line running; correct automatic stride.

664. DISTRIBUTING AMERICA'S GOODS (1946) A VII EBF
11 min. *
Cost of distributing America's goods: to producer, wholesaler, retailer, and transporter. How distributors and consumers can cooperate to reduce distribution costs.

665. DISTRIBUTING HEAT ENERGY √ √/ (1938) C VIII EBF
(General Science Series)
11 min. *
Fuel, heating systems, principles underlying heat distribution. Coal, petroleum, natural gas, wood, mechanical energy of falling water. How coal, oil and gas furnaces work; how homes are heated by hot air, hot water, steam. Convection, conduction, radiation.

666. DISTRIBUTION OF FOODS (1946) B IV EBF
11 min. *
Technical and economic problems involved in world food distribution; many areas cannot supply their own consumption. Effect of improvements in transportation, storage, processing, preservation. Problems of individual income, distribution costs, trade barriers; possible solutions.

667. DIVIDING CANCER CELLS IN VITRO (1936) A II 1o WISTAR
7 min.; silent. *
Mitotic division of 9 bipolar, 2 tripolar and one normal macrophage from 4 rat sarcomes. Most scenes start in metaphase. Chromosomes oscillated in metaphase, pulled to poles in anaphase, adhere and swell in telophase to form interphase nucleus. Cell flattening in anaphase and cleavage in telophase due to equatorial increase of cytoplasmic viscosity. A few macrophages and rapidly moving lymphocytes. Centrosome and spindle fibers not visible.

668. DIVIDING NORMAL ADULT RAT FIBROBLASTS IN VITRO (1939) — C II WISTAR
7 min. ; silent. *
Chromosomes shrink, become free and visible in prophase--I, are pulled into equatorial plate in prophase--II, oscillate in metaphase, are pulled to poles in anaphase, adhere and swell to form interphase nucleus in telophase. Pseudopod retraction in prophase and metaphase, cell flattening in anaphase, cleavage in early telophase due to changes of cytoplasmic viscosity. Centrosome and spindle fibers not visible.

669. DIVISION IS EASY (1949) — C VII 1
10 min. ; also color. * — CORONET
Division explained; why important; what to learn in order to master this basic arithmetical process.

670. DIVISION OF PATENT DUCTUS ARTERIOSUS (1947) — A II 1q BURKE
15 min. ; color; silent. *
Enlarged heart with prominent pulmonary conus shown by x-ray. Left posterolateral periscapular incision; ductus dissected and divided; cuffs of aorta and pulmonary artery sutured. Anatomy clearly shown. Normal heart shown in x-ray three months after operation.

671. DO BETTER ON YOUR EXAMINATIONS (1951) — A IV 5 CORONET
10 min. ; also color. *
How positive attitude toward examinations can be developed when students understand purposes, objectives, and values of examinations. Various types of examinations demonstrated.

672. DOCTOR, THE√(1947) — A IX 1
11 min. * — EBF
Significant role of doctor in modern society. Day's activities of a child specialist, in office, at hospital, at home of patient. Gives a boy routine physical examination; vaccinates a baby; visits hospital patients; diagnoses case of measles.

673. DOCTOR, THE (1945) — A IX 1
14 min. — STATE
Daily life of doctor practicing general medicine in a small town (U.S.A.) seen through eyes of his family; their lives closely bound to lives of others in community.

674. DOCTOR IN INDUSTRY (1946) — A II 7c
60 min. ** — GenM
Development of industrial medicine shown in dramatized story of "factory doctor" who (from 1900 forward) battles to establish preventive medicine in industry; fights prejudice; cooperates with manufacturers to bring health and safety to employes; raises industrial medicine to its present honored position.

675. DOCTOR SPEAKS HIS MIND, THE (1948) — A II 1o ACS
22 min. ***
Average general practitioner expresses deep concern because so many patients with cancer come to him when it is too late for him to be of help. (Special-purpose film designed to pave way for medical speaker after film has stimulated initial interest of audience).

676. DON'T DROP YOUR GUARD (1951) — A II 7c AETNA
11 min. **
Place and importance of machine guards in industry; protection afforded by various types of guards. Workers encouraged to recommend new or improved guards to reduce hazards and increase operating efficiency.

677. DOORWAY TO DEATH (1949) — A II 7a
13 min. ; color. ** — AETNA
Home accidents dramatically illustrated: how to prevent them demonstrated.

678. DOPPLER EFFECT (1952) — C VIII
(College Physics--Sound Series) — McG-H
6 1/2 min.
Factors determining pitch of sound explained. Waves advancing toward listener explained with (1) source and listener stationary; (2) source in motion, listener stationary; (3) source stationary, listener in motion.

679. DOUBLE RAM VERTICAL SURFACE BROACHING√ (1944) — A VI 1 OE
(Machine Shop Work--Broaching Machine--238)
30 min. *
How to assemble broaching inserts in right- and left-hand toolholders; mount and adjust work fixtures; set trip dogs for ram stroke; measure workpiece after trial broaching; and surface-broach on double ram vertical broaching machine at production rate.

680. DOUBLE RINGER (1951) — D I 2
13 min. ; color. ** — IntHar
How parlor milking saves time, work, is more economical, and produces top quality milk; herds of different breeds of dairy cattle shown.

681. DOUBLE YOUR MONEY FROM TRAPS (1948) — D III USIndS
20 min. ; color.
Fur industry; trapper's part in it. How, when, why to trap in proper season. How to skin muskrat, beaver.

682. DRAFTSMAN, THE (1942) — A VI 5
11 min. * — MAHNKE
Graphic language of lines and symbols. Steps necessary in preparation of plans for building. Kinds of drafting used: free hand sketches to detailed finished drawings, each phase handled by men trained for particular types of detail

work. Heating, plumbing, wiring, air conditioning, landscaping, require services of draftsmen. Machine, tool, automotive and aviation construction, based on work of draftsman. Jobs for draftsmen in industry.

683. DRAFTSMEN OF DREAMS: INVENTIONS AND PEOPLE (1946) (The World Today Series) 16 min. * — A VI 3 TwC-FF

Importance of inventions in satisfying social needs; opportunities for inventors in democratic society; role of United States Patent Office in recording inventions and protecting rights of inventors.

684. DRAWING WITH PENCIL (1947) 11 min. * — E IV EBF

Collaborator Theodore Kautzky, A.N.A., demonstrates effective techniques in drawing scene with pencil, emphasizing general design; thumbnail sketching; preparation of pencil point; drawing sharp lines; making broad masses; achieving textures of wood, brick, shingles, stone, and foliage.

685. DRAWINGS AND THE SHOP, THE √(1947) (Engineering Drawing Series) 15 min. — D II McG-H

Relationship between drawing and production operations; modern production methods; basic machines; flow of work as called for in drawings.

686. DRILLING A HOLE IN A PIN √ (1942) (Machine Shop Work--Drill Press--46) 10 min. * — A VI 1 OE

How to lay out two holes at each end of short 1 1/4" diameter pin; to drill holes on sensitive drill press.

687. DRILLING AND TAPPING CAST STEEL √(1942) (Machine Shop Work--Drill Press--22) 19 min. * — A VI 1 OE

How to drill and tap blind holes in cast steel on radial drill, using jig with loose drill bushing to locate holes.

688. DRILLING, BORING AND REAMING WORK HELD IN CHUCK √(1941) (Machine Shop Work--Engine Lathe--9) 11 min. * — A VI 1 OE

Operations for cutting tapered hole in forged steel gear blank, using taper attachment. Operations of centering piece in chuck, rough-facing, drilling, taper-boring, and reaming given in detail.

689. DRILLING, TAPPING, STUB-BORING, AND REAMING √ (1944) (Machine Shop Work--Horizontal Boring Mill--230) 22 min. * — A VI 1 OE

How to drill and machine-tap hole; use core drill; a stub-boring bar for rough-and finish-boring and counterboring; adjustable reamer and floating reamer.

690. DRILLING TO A LAYOUT AND SPOTFACING CAST IRON √ (1942) (Machine Shop Work--Drill Press--23) 15 min. * — A VI 1 OE

How to drill to layout and how to spotface underside of valve body flange, using radial drill.

691. DRILLING WITH PORTABLE DRILL MOTORS √(1944) (Sheet Metal Work--Assembling and Riveting--138) 17 min. * — A VI 1 OE

How to use portable electric drill motor; select drill; check drill for true running; install and use special attachment for drilling.

692. DRIVING AND BUCKING RIVETS (1944) (Sheet Metal Work--Assembling and Riveting--140) 18 min. * — A VI 1 OE

How to set up and adjust rivet gun; drive and buck rivets; how riveter and bucker work together as team.

693. DRIVING AT NIGHT (1951) (Driver Education Series) 10 min. ** — A II 7d FORD

How to drive an automobile safely after dark.

694. DRIVING IN THE CITY (1951) (Driver Education Series) 10 min. ** — A II 7d FORD

Correct techniques for driving an automobile in a city.

695. DRIVING ON THE HIGHWAY (1951) (Driver Education Series) 10 min. ** — A II 7d FORD

Correct techniques for driving an automobile on the highway.

696. DRIVING UNDER ADVERSE CONDITIONS (1951) (Driver Education Series) 10 min. ** — A II 7d FORD

Correct techniques for driving an automobile in rain, snow, fog, sand and under other adverse conditions.

697. DUCK HUNTER'S DILEMMA (1951) 20 min. ; color. — A V 2 UMINN

Dilemma faced by present-day hunters: fewer and fewer birds, more and more hunters in the field. Pictures work of game biologist. How research is meeting the challenge. Unusual scenes of game birds in their natural surroundings; distinctive features.

698. DUODENUM, SMALL AND LARGE INTESTINES (1941) A II 1a BURKE
(Surgical Anatomy Series)
15 min. ; color; silent. *
Relation of duodenum and intestines to adjacent organs. Site of most frequent occurrence of ulcer; contrast in color and tissue of duodenum and jejunum. Transillumination of mesentery showing change in structure of tissue and size of blood vessels as approach is made to termination of small intestine. Kidney and surrounding anatomy in relation to second part of duodenum. Origin and route of mesenteric artery. Site of many obstructions at point where transverse division of duodenum is crossed by mesenteric artery. Dissection on unembalmed cadavers shows natural color and condition of tissues involved.

699. DUPONT STORY, THE (1951) A IX 1 DUPONT
72 min. ; color.
Dramatized story of the beginning, growth and diversified interests of the Dupont Company from colonial era of the United States to date. First powder mill; others that followed; development of a new blasting powder; competition with dynamite. Research and broadening of company's production, from explosives to dyes, cellophane, synthetic rubber, plastics, nylon. Importance of research in industry.

700. DUTIES OF A SECRETARY, THE (1947) A VI 3 NEFilm
31 min.
Proper methods of handling mail, dictation, telephone calls, appointments. General small office routine, dramatically contrasted with possible mistakes.

701. DWELLERS OF SWAMP AND POND C II IO-R
30 min. ; color; silent. *
Reel I: The Salamanders: as found in New Jersey, and northeastern United States. External structure and diagnostic characters. Larvae hatching. Common and scientific names.
Reel II: The Frogs and Toads: Anura of the same region.

702. DYNAMITE (4-029) (1944) A II 3a CDC
12 min. **
How dynamite can be employed in constructing antimalarial drainage ditches. Use of dynamite in draining Ward's Brake, a huge quagmire in bottom lands of Arkansas. Preliminary activities: survey by engineers, final clearing of land, dynamite test shots, running center line of ditch, marking exact spots where dynamite is to be planted. Dynamite engineer demonstrates correct fuse and cap procedures and method of firing dynamite. Precaution against delayed explosions. Ground conditions determine use of punch bars, crowbars, soil augers, or post hole diggers; whether necessary to wire one stick or to wire all.

703. DYSTONIA MUSCULORUM DEFORMANS (1944) A II 4d SPGood
(Neuropsychiatric Disorders Series)
20 min. ; silent. *
Various forms of dystonia; one case, of encephalitic origin, from incipiency to demise and post-mortem; familial type of disease demonstrated.

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704. EARLY DEVELOPMENT OF THE RABBIT EGG IN VITRO, THE (1934) C II WISTAR
16 min. ; silent. *
Fertilized eggs obtained from uterine tubes show cumulus cells, zona, polar bodies, cleavage, morula and blastocyst formation, blastocyst cavity, trophoblast and inner cell mass. Nucleus is visible in early blastomeres. Chromosomes and spindle not visible. Zone ruptured by pressure of blastocyst fluid. [A short (3min.) version available consisting of scenes selected from this film.]

705. EARLY DIVISIONS, 2-8 CELLS, OF LIVING MONKEY EGG IN VITRO (1934) C II WISTAR
4 min. ; silent. *
Shows zona, polar bodies and dichotomous but not simultaneous cleavages. Centrosome and its dark satellite granules divide, one part migrates to opposite pole of nucleus, each centrosome then divides and unites. Chromosomes and spindle not visible.

706. EARLY SETTLERS OF NEW ENGLAND √ (1940) A IX 1 EBF
11 min. *
How settlers (New Salem, 1626) adapted themselves to new environment and hardships of early New England. Problems of food, shelter and clothing. How faith and spirit of cooperation contributed to successful growth and development of community.

707. EARLY SOCIAL BEHAVIOR (1934) A VI 4 EBF
10 min. *
Analysis of personalities of ten young children (eight weeks to seven years of age) in various social situations; social significance of the home and relationships with and among other members of family.

708. EARS AND HEARING √√ (1950) C II EBF
11 min. *
Physiology of human ear; how it functions. How parts of ear operate. Important kinds of sounds. Three common causes of impaired hearing. How hearing aid is used.

709. EARTH, THE (MN-83a) (1942) A VI 1 USNavy
(Celestial Navigation Series)
16 min.

Latitude and longitude: Arrangement and meaning of poles, earth's axis, equator, great circle, parallels, meridians; nautical miles, departure, etc. How latitude and longitude are used to locate position on earth's surface. This film is one of many instructional (training) films comprised in the series on Navigation produced by the Department of the Navy. The subjects covered are charts, nautical astronomy, star identification; dead reckoning, plotting, celestial lines of position; surface piloting; relative movement, sextant and compass, etc.

710. EARTH AND THE SUN'S RAYS (DISTRIBUTION OF INSOLATION) (1951) (Physical Geography Series) 5 min. * — C V — UWF-GB

How earth's tilted axis causes unequal distribution of sun's energy over earth, which is surrounded by layer of air; how angle of incidence of sun's rays affects temperature.

711. EARTH IN MOTION √ √ (1936) 11 min. * — C I — EBF

Earth as astronomical body; relation to sun; its motion. Its sphericity; axis rotation; revolution about sun; inclination of axis. Simulated observation of earth from stratosphere, etc. Causes of night and day.

712. EARTH'S ROCKY CRUST √ (1934) 10 min. * — C VI — EBF

Composition of earth's surface; constant change. Building up and breaking down of land forms; water cycle; formation and crumbling of rocks.

713. EARTHWORM, THE (1948) (Zoology Series) 10 min. * — C II — UWF-GB

Role of earthworm in soil aeration. Body parts dissected and reproductive, circulatory and excretory systems shown. Processes of fertilization, egg-laying, cocoon formation and birth of young worms.

714. EASIER WAY, THE (1947) 13 min. ** — A VI 1 — GenM

Principles of motion study illustrated. How improved methods of job operation have made various jobs more productive and easier to handle.

715. EASIER WAYS OF LOGGING (1952) 26 min.; color. ** — D I 5 — USDA

Recommended logging practices; emphasis on methods for farmers and small woodland owners in eastern United States. Sources of information on logging.

716. EASIER WAYS TO MAKE HAY (1945) 10 min.; color; silent. * — D I 1 — NYSExt

Common ways of making hay from bunch and pitch method to use of hay-loaders, forks and slings, buckrakes, windstackers, pick-up balers, baler loaders in field and baler elevators in barn; How farmer can improve his method of making hay; Number of man-hours required to put up one ton of hay for each of various methods.

717. EASTER SEASON, THE (1952) 11 min.; also color. * — B VIII — CORONET

Easter as a spring celebration; intercultural roots of many Easter customs.

718. EASY ON THE EYES √ (1949) 15 min. * — A II 7 c — NSC

Value of eyesight; how safety glasses help to avoid accidents in industrial plants.

719. ECHINODERMATA 30 min.; color; silent. * — C II — IO-R

Reel I: Asterias; locomotor and feeding activities; tube feet, pedicellariae and everted stomach. Typical method of feeding on bivalve mollusks. Cucumaria in close view, with details of tentacles, their eversion, and method of feeding. High magnification view of posterior end illustrates cloacal breathing movements; action of the cloacal valve. Strongylocentrotus, in external detail; close views of mouth and surrounding pedicellariae in active motion.

Reel II: Four major groups of echinoderms illustrated. Representatives of phylum. Variety of form, color, and motion brings out external parts (mouth and adjacent structures, spines, plates, tube feet, madeporite, and sense organs). Variety of color pattern in brittle stars; method of locomotion. Leptosynapta shows branching tentacles surrounding mouth; rhythmic waves of constrictions passing along transparent body.

720. EDUCATED FEET (1940) 15 min.; silent. * — A II 6 — BAILEY

Proper and graceful habits of sitting, standing, walking, and playing; how postural defects in elementary school children may be corrected or remedied.

721. EDUCATION FOR LIVING (1949) 20 min. * — A I 1 — SyracU

How Syracuse University assists its students through counselling, instruction, and training. Case studies of three typical students, majoring in education, engineering, social science. How graduates are equipped to become contributing members of community.

722. EDUCATION IS GOOD BUSINESS (1946) 10 min.; also color. ** — A I 1 — ISEA

Story of two towns. One, prosperous because its well-trained young people are an asset; the other, not prosperous because it has neglected the education of its youth. Thesis developed is that wherever a community, state or nation invests a substantial share of its

resources in education, the investment return is better business and higher standard of living.

723. EDUCATION THROUGH ART AND HOME ECONOMICS (1947) A I 1 TCCU
12 min.; color. *
How teachers of art and of home economics work together to provide skill-producing experiences. Cooperation of parents, teachers and administrators demonstrated.

724. EFFECT OF VARIOUS DRUGS ON CONTRACTIONS OF MESENTERIC LYMPHATICS IN THE RAT (1934) A II 1a WISTAR
12 min. *
Effect of nembutal, pitressin, pitocin, adrenalin, pilocarpin, barium chloride and nitroglycerine on contractible mesenteric lymphatic vessels of albino rat. (Dr. Richard L. Webb).

725. EFFECTS OF HEMIDECORTICATION IN THE DOG (1947) A II 1q IND
11 min. *
Principal changes in behavior of dog produced by complete surgical removal of one hemisphere of cerebral cortex. How reactions of unaffected side of body serve as "control" with which to compare reactions of affected or paralyzed side. Loss of placing reaction, hemidecorticate rigidity, effect upon hopping reflex, rotating behavior (continuous walking in circle) and hemianopsia are demonstrated. Localized brain surgery, illustrated by diagram, shows rotating behavior caused by removal of frontal and not by removal of occipital cortex.

726. EFFECTS OF METALLIC IONS AND OSMOTIC DISTURBANCES OF THE HEART, THE (1944) A II 1a IND
10 min. *
How activity of isolated heart can be maintained through employment of refined techniques and an ionic and osmotic equilibrium of body fluids; how heart fails when excess of potassium, calcium, or sodium ions is added to perfusate and during dehydration.

727. EGGS W (1946) D I 2
11 min. * EBF
Egg production on large, commercial egg farm; efficiency of modern methods; care of hens; gathering eggs from open nests and trap nests; purpose of cooling room, candling machine, electric egg cleaner, grading machine track, packing, sealing, shipping.

728. EGGS AND MIRACIDIA OF SCHISTOSOMA MANSONI (4-067) (1947) A II 1r CDC
3 min.; silent. **
Viable eggs of S. Mansoni fully embryonated when feces are passed; hatching in fresh water; miracidia seek suitable snail intermediate host. Attack mechanism of miracidium. Penetration of skin of snail by miracidium appears to be partly mechanical, partly chemical.

729. EIGHT INFANTS: TENSION MANIFESTATIONS IN RESPONSE TO PERCEPTUAL STIMULATION (1951) A II 4 c MenniF
45 min.; silent. *
Infants' behavior before, during, and after prolonged perceptual stimulation; wide variety of marked behavior changes resulting from stimulation of seeing toys, vigorous play, inclusion in family events. Behavior changes conceptualized in terms of mounting tension and resulting de-differentiation of behavior.

730. EIGHT PARTS OF A BUSINESS LETTER (1944) A VI 1 LibFilms
10 min.
How mail is handled; why letters are standardized as to form in business; difference between social and business forms. What materials to use in business letter writing. Heading, introductory address, salutation, body, complimentary close, signature, outside address, return address, proper folding and enclosing of business letters. Two-page letters; window envelopes. Basic display and arrangement of parts.

731. ELECTRICAL CIRCUIT FAULTS (1944) A VI 1 OE
(Electrical Work--Wiring--375)
19 min.*
How to test for and locate common circuit faults; grounds; resistance deterioration; interference in circuits.

732. ELECTRICIAN, THE (1942) A VI 5
11 min. * MAHNKE
Work of electrician in three major fields: power and lighting, communication, transportation. Special jobs shown and described; work of top-ranking graduate electrical engineer. Sources of training described; interior of trade school shown with student learning by doing.

733. ELECTRIFIED FARMING (1950) D I 3
24 min.; color. ** GE
How electrical equipment has replaced handwork on modern farm. Use of electric gutter cleaner; electric silo unloader; electric-powered equipment on fruit farm; ventilators; heaters; brooders; eggwasher; etc. Designs for new equipment shown.

734. ELECTROCARDIOGRAPHY (PMF 5166) (1949) A II 1 a USArmy-P
10 min.; color. **
Use of cathode-ray oscilloscope to show magnitude and direction of galvanometer deflections caused by changing relative position of two oppositely charged points within a

conducting fluid; mathematical explanations relating human electro-cardiogram to Einthoven's hypothesis.

735. ELECTROCHEMISTRY√ √(1937) C IV
11 min. * EBF
How chemical energy may be transformed into electrical energy and vice-versa. Chlorine and hydrogen react at platinum electrodes; decomposition of hydrogen chloride. Electroplating, electro-refining; electrolysis; storage-battery operation.

736. ELECTRODIAGNOSTIC PROCEDURE (PMF 5066) (1947) A II 1 a USArmy-P
19 min.; color. **
Use of Golseth-Fizzell constant current stimulator as one method of determining neurological state of muscles in peripheral nerve injuries and other neuropathologies; characteristics; mechanical operating procedures; application of technique to clinical cases.

737. ELECTRODYNAMICS√ √(1936) C VIII
11 min. * EBF
How moving electric charges create magnetic field; how moving magnets create electric current. Galvani's discovery. Magnetic properties of current carrying wire; of electric coil. Rowland's experiment. Recalescence; electromagnetic induction, in generators and transformers.

738. ELECTROMAGNETS (1949) C VIII
11 min. * YAF
Theory of electromagnetism explained from simple bar magnet to completed electromagnet made from simple home materials. How electromagnet is used in doorbell, telegraph set and many other everyday applications. (See "Magnets and Flow of Electricity").

739. ELECTROMYOGRAPHIC PROCEDURE (PMF 5067) (1947) A II 1 a USArmy-P
7 min.; color. **
Accessories necessary for use in actual testing of electric impulses in muscles.

740. ELECTRON, THE--AN INTRODUCTION (Engineering--Electronics--175) (1944) C VIII OE
16 min. *
Nature of electrons, electron flow in solid conductors, electromotive force, control of electron flow, types of electron flow, electron flow and magnetic fields, and induced electron flow.

741. ELECTRONICS AT WORK (1946) C VIII
20 min.; also 35 mm. ** WestH
Electronic devices in use in homes, hospitals; radio, x-ray equipment, diathermy apparatus, bactericidal lamps. In industry: in manufacture of aluminum and magnesium.

742. ELECTRONS√ √(1937) C VIII
11 min. * EBF
Hypothesis that electricity consists of unit elementary charges: conduction through solutions, gases, vacuum. Farady's laws. Valence; movements of charges in vacuum tubes; operation of photoelectric cells; reproduction of sound on film.

743. ELECTRONS ON PARADE (1940) C VIII
20 min. RCA
Manufacture of parts of vacuum tubes: testing of raw materials; grid winding and formation; heater coils, coating; anode plates, cathodes, heaters, collars. Assembly of parts: welding tabs to cathodes, head and collar; heating, bending and annealing glass tubes; stem testing, bending lead wires, mounting grids, inserting cathodes; anode and mica spacer; sealing, removing air, soldering. Testing for leakage, aging, final checking.

744. ELECTRO-SHOCK THERAPY IN AMBULATORY PRACTICE A II 4a IO-R
12 min.; color; silent. *
Method of treating cases indicated in depression, involutional melancholia, catatonia, hebephrenia, paranoid conditions, and possibly severe psychoneuroses. Advantages over shock induced by insulin or metrazol. Apparatus demonstrated in detail; preparation of patient and application of electrodes. "Petit mal"; "grand mal"; tonic phase and clonic phase of convulsion with occasional psychomotor excitement.

745. ELECTROSTATICS√ √(1933) C VIII
11 min. * EBF
Hypothesis that all matter is composed of positive and negative electricity. Insulators, conductors; electroscope, electrometer, static machine. Physics of lightning explained.

746. ELEMENTARY OPERATIONS OF THE ENGINE LATHE (1941) A VI 1 EBF
22 min. *
Parts and operation of engine lathe; tail stock, head stock, tool, tool holder, dog assembly, cross feed control; use of chuck and of boring bar and reamer.

747. ELEMENTS OF DESIGN: LINE (1950) E IV YAF
11 min. *
Line as basic element of design; its function in art and industry of everyday life. Effects achieved by use of straight lines, curved lines, S-shaped lines, circles, and various combinations.

748. ELEMENTS OF ELECTRICAL CIRCUITS√ √(1943) C VIII EBF
11 min. *
Concept that electric current is a flow of electrons controlled by circuits. Conductors, insulators; measurement of electric flow. Ohm's law.

749. ELEPHANTS √ W (1940) C II
11 min. * EBF
Characteristics and appearance of domesticated elephants. Physical features; their food, methods of eating, drinking, bathing. Adult elephant performs for circus buyer. Young elephants in training for circus work.

750. ELEVATION OF DEPRESSED FRACTURE (PMF 5098) (1948) A II 1 q USArmy-P
40 min.; color. **
Compound depressed fracture left frontoparietal area caused by machete blow; surgical management; warning lessons. Recovery from weakness associated with right side.

751. ELI WHITNEY (1951) A IX 1
18 min. * EBF
Biography of Whitney, inventor of cotton gin; influence of gin on economy of South. His experiments with designing tools and building machinery which later became technical basis for mass production.

752. ELIMINATION √ W (1950) C II
(Human Biology Series) UWF-GB
12 min. *
Human body's methods of elimination. Structure and functions of four routes of elimination: skin and elimination of water and dissolved substances through sweat glands; kidneys and passage of water and dissolved substances from blood into kidneys with formation and elimination of urine; lungs and elimination of surplus carbon dioxide in expiration; colon and elimination of indigestible waste materials.

753. EMBRYOLOGY OF THE EYE (1950) A II 1 m AAOO
50 min.; color. **
Complete description and visual demonstration of slow continuous development of human eye.

754. EMERGENCE OF PERSONALITY (1948) A II 4c EBF
(Personality Development Series)
32 min. *
How developing personality of child is influenced by parents' ability to provide for his basic needs and prepare him for social living. (Combined forum version of "Baby Meets His Parents", "Helping the Child to Face the Don't's" and "Helping the Child to Accept the Do's").

755. EMOTIONAL HEALTH A II 4c
(Health Education Series) McG-H
(1948)
20 min.
Story of student who discovers emotional cause of physical illness. Psychiatric techniques as normal treatment of persistent emotional disturbance to which no stigma should attach.

756. EMPLOYING BLIND WORKERS IN INDUSTRY (1945) A VI 1 OE
(Problems of Supervision--165)
17 min. *
Role of placement specialist for blind workers emphasized; types of jobs; safety factors; important points in supervision in connection with blind workers.

757. EMPLOYING DISABLED WORKERS IN INDUSTRY (1946) A VI 1 OE
(Problems of Supervision--399)
20 min. *
Actual cases showing that disabled persons can handle many skilled industrial jobs. Specific examples taken from machine shop, carpentry, welding, watchmaking, jewelry, sewing, and office work.

758. ENCEPHALOGRAPHIC STUDIES IN EXTRAPYRAMIDAL DISEASES (1944) A II 4 d SPGood
(Neuropsychiatric Disorders Series)
9 min.; silent. *
Groups of cases with their corresponding encephalograms demonstrate relationship between clinical and anatomical pathology, with especial reference to ventricular system and relationship to anatomical centers involved. Chronic degenerative chorea, progressive hepato-lenticular degeneration, dystonia musculorum deformans, Little's disease and double athetosis; antero-posterior and lateral views.

759. ENDAURAL APPROACH TO TEMPORAL BONE SURGERY, THE: FENESTRATION, RADICAL MASTOIDECTOMY (1949) A II 1 q BURKE
160 min.; color; silent. *
Part I. Anesthesia, Skin Incision, Simple Mastoidectomy, Modified Radical, Skin Flap, and Fenestration.
Part II. Anesthesia, Skin Incision, Simple Mastoidectomy, Modified Radical, Radical Mastoidectomy.
Part III. Skin Flap and Fenestration Only.
Part IV. Radical Mastoidectomy.

760. ENDFEED GRINDING A TAPERED PIN √ (1944) A VI 1 OE
(Machine Shop Work--Centerless Grinder--89)
26 min. *
Principle of endfeed grinding; how to use cams in tapering, regulating and grinding wheel, rough-and-finish-endfeed grind; use taper collet gage and Prussian blue to check work; redress wheels for finish grind; and correct taper error of less than .0005.

761. ENDOCRINE GLANDS √ W (1939) C II
(The Human Body, Series 2) EBF
11 min. *
Appearance, location, function and importance of various glands of internal secretion: pituitary; parathyroid; pancreas; mammary. How

they effect behavior and growth. Hormones as stimulants.

762. ENDOTRACHEAL ANESTHESIA √√ (1949) A II 1 b SQUIBB
20 min.; color. **
Advantages of endotracheal anesthesia; various intubating agents compared; anatomy involved in endotracheal intubation; safety of technique proportional to skill of anesthesiologist.

763. END-TO-SIDE ANASTOMOSIA OF SPLENIC VEIN TO RENAL VEIN (1948) A II 1 q SturG
10 min.; color; silent. *
Surgical procedure of end to side anastomosis of splenic vein to renal vein for portal hypertension. (Dr. Arthur H. Blakemore)

764. ENEMY OF YOUR EYES, THE (1950) A II 1 m USIndS
13 min.; color.
Nevajo family suffering with trachoma is cured painlessly in Indian Service hospital by sulfanilamide treatment devised by Indian Service physician. Field nurse teaches them how to avoid reinfection by improved home sanitation.

765. ENERGY AND ITS TRANSFORMATIONS √ √ (1933) C VIII EBF
11 min. *
Potential, kinetic, radiant energy defined as manifested and used in mechanical, electrical, chemical, thermal forms. Joule's experiment illustrating conservation of energy; present and future sources of energy portrayed.

766. ENGINE ASSEMBLY, THE (1944) A VI 1 OE
(Automobile Operation and Maintenance--463)
19 min. *
How to check cylinder head and block; intake and exhaust manifolds; under-chassis parts; valve mechanism, adjusting tappets; vents, screws, air filters; oil filter, oil lines, and cylinder depression.

767. ENGINE CHANGE: INSTALLATION (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--273)
17 min. *
Safety precautions to be observed when installing engine; how to inspect engine mount, controls, firewall; connect controls and attachments; ground-test engine; and prepare for check flight.

768. ENGINE CHANGE: REMOVAL (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--272)
17 min. *
Safety precautions to be observed when removing engine; how to disconnect controls and attachments; remove engine; inspect mount, firewall, and controls.

769. ENGINE TESTS AND TUNE UP (1944) A VI 1 OE
(Automobile Operation and Maintenance--465)
18 min. *
How to adjust automatic choke; check and adjust ignition; time ignition; check and adjust valve tappets; adjust carburetor; how to make vacuum gage tests.

770. ENGINEERING (1942) A VI 5 MAHNKE
11 min. *
Work in fields of civil, structural, hydraulic, sanitary, mechanical, combustion, machine design, refrigeration, heating and ventilating engineering; branches of general fields shown (electrical, mining, metallurgical, chemical); work in each explained. Action scenes. Qualifications for work in field of engineering, stated in detail.

771. ENGLAND: BACKGROUND OF LITERATURE (1948) A IV 2 CORONET
10 min.; also color. *
English settings associated with works of Shakespeare, Dickens, Conrad, Kipling, others.

772. ENGLISH INFLUENCES IN THE UNITED STATES (1950) A IX 2 CORONET
10 min.; also color. *
Some basic influences of English culture on America; ideas of democratic action, body of law, freedom of speech and press, religious tolerance, language and literature, art forms and styles.

773. ENVIRONMENTAL SANITATION (1946) A II 3 I. I-A. A.
10 min.; color
Why sanitary practices are required in cities to safeguard public health; how adequate facilities may be secured (in Latin America especially).

774. EPIDEMIC ENCEPHALITIS (1944) A II 4 d SPGood
(Neuropsychiatric Disorders Series)
19 min.; silent. *
Particular features of sequelae of epidemic encephalitis; cases involving self-mutilation, massive myoclonic movements, involvement of endocrines.

775. EPIDEMIOLOGY OF INFLUENZA, THE (4-100) (1950) A II 1 d CDC
12 1/2 min. **
Historical significance of influenza; accomplishments in fight against influenza since pandemic of 1918; behavior and periodicity of disease. Program of World Health Organization; establishment of lookout posts; physicians' role in reporting outbreaks and preventing recurrence of pandemic; collection of pathogenic specimens; laboratory procedures.

776. EPIDEMIOLOGY OF MURINE TYPHUS, THE (4-049) (1948) A II 1r CDC
18 min. **

Three elements of murine typhus epidemic: animal reservoir (rats) to vector (rat fleas) to man. Human incidence of murine typhus: geographic distribution; age, sex and social status distribution; seasonal characteristics. Character of rat reservoir of infection; mode of perpetuation; mode of transmission. Relation of vector to reservoir; to humans. Role of doctor in diagnosis, serological confirmation, and reporting of murine typhus. Role of public health officer in locating foci of infection, instituting continuous control measures, cooperating in analysis and control of epidemics. Role of epidemiologists in locating infectious rats, confirming by complement-fixation tests, counting and indentifying ectoparasites, analyzing data, and instituting control measures. Brief visualization of key control activities: DDT dusting, poisoning rats, and ratproofing building.

777. EROSION (1948) — D I 1
5 min.; also 35 mm. ** — USDA

What natural and man-made soil erosion have done to productive land in United States; sheet and gully erosion by water; wind erosion. Destructive erosion not necessary, if conservation farming methods are used.

778. ERRORS OF REFRACTION (1944) — A II 1m NU
35 min.; color; silent (all animation). *

Physical optics: what refraction is; function of prisms and lenses; an astigmatic refracting system. Anatomy of eye. Optical principles of refraction applied to ametropic human eye.

779. ESKIMO CHILDREN √ W (1941) — A IX 1
(Children of Many Lands Series). — EBF
11 min. *

Eskimo life on island off Alaskan coast (principally activities of children); how Eskimos solve basic problems of food, shelter, clothing. Handicrafts, work, household duties, hunting, drying fish; visiting trader's store, gathering driftwood, playing games, telling stories.

780. ESKIMO SEA HUNTERS-- Northwestern Alaska (1949) — A IX 1 UWF
20 min. *

How Eskimos live on shores of Arctic Ocean; how they hunt, fish; make shelters and clothing, gather firewood; exchange skins and furs at trading post for manufactured goods.

781. ESKIMO TRAILS (1940) — A IX 1
(Father Hubbard Adventure Series) — TFC-20th Cent-Fox
9 min. *

Father Hubbard on 2,000 mile trip to Wainright, Point Barrow and return; King Island. Typical scenes of Eskimo life; cliff dwellers. Eskimo singing and dancing. Types of ice formation (pancake, lily pad). Map shows course of trip.

782. ESKIMOS (WINTER IN WESTERN ALASKA) (1950) — A IX 1 EBF
11 min. *

Eskimo life throughout long winter; dependence on fish as food supply. How fish are caught in winter. Food, clothing, housing; how Eskimos keep warm. Seal hung, authentic Eskimo dance.

783. ESOPHAGEAL DIVERTICULUM (no. 419) (1947) — A II 1q DG
43 min.; color; silent. **

Two-stage operation for removal of large sac. Demonstration of complications. (Dr. Frank H. Lahey).

784. ESOPHAGOGASTROSTOMY FOR ACHALASIA OF THE ESOPHAGUS (1950) — A II 1 q SturG
25 min.; color. *

Technic of lateral anastomosis between esophagus and fundus of stomach, proximal to obstruction at cardia. (Dr. John L. Madden).

785. ESTABLISHING WORKING RELATIONS FOR THE DISABLED WORKER (1946) — A VI 1 OE
(Problems of Supervision--401)
14 min. *

Tact and judgment supervisor must use in establishing working relations for disabled worker.

786. EVERGREEN EMPIRE, THE (1939) — A IX 1 TFC-20th Cent-Fox
(Magic Carpet Series)
11 min. *

Descriptive film on State of Washington. Industrial development; lumber, salmon industries; shipping. Seattle and Olympia.

787. EVERYDAY COURTESY (1948) — A VI 4
10 min.; also color. * — CORONET

Courtesy defined; customs as courtesy skills which minimize social friction. Objective group guidance in courtesy as simple, easy, practical way of behaving.

788. EVERY DROP A SAFE ONE √ W (1945) — A II 3a NMP
(Health Series)
10 min.; also 35 mm. *

Water, beautiful, refreshing, useful prime necessity of life; subject to contamination, may carry disease germs. Importance of water purification. Modern plant shown (aerators, ammoniator, chlorinator, lime and alum machines, activator); chemical reaction. Sedimentation basin; recarbonization; filtration; chlorination; distribution under pressure. Sterilization of mains. Chemical and bacteriological laboratories.

789. EVERY MINUTE COUNTS (1944) — A VI 1 OE
(Problems of Supervision--161)
10 min. *

Supervisor, worried because of absenteeism

and tardiness in his department, shown many causes; takes steps to remedy situation.

790. EVERY TWO SECONDS (1945) A I 5c
10 min.; also 35 mm. ** BLUEC
How civic-minded group of citizens promoted building of community general hospital; organized non-profit Blue Cross hospital service plan through which townspeople protect themselves against financial hazard of unexpected hospitalization, by periodic subscription payments to plan.

791. EVOLUTION OF THE OIL INDUSTRY (1952) A VII SINCL
34 min. **
Discovery of petroleum. Development of industry: production, transportation and refining.

792. EXAMINATION OF THE BREAST FOR EARLY CANCER (1948) A II 1 BURKE
15 min.; color. *
Method of examining patient; details of tissues within breast. Patients with lumps in breast, distortion, fixed masses in axillae, discharge from nipple, Paget's disease. Cases that had been treated with X-ray and cured; cases cured with surgery.

793. EXAMPLE OF A BASIC RESEARCH (1942) A VI 1 PURDUE
6 min.; silent. *
How to obtain basic data on which motion economy principles are built. Basic research project in motion study (two experiments); apparatus involved.

794. EXCYSTATION AND MOTILITY OF ENDAMOEBA HISTOLYTICA (4-070) (1948) A II 1r CDC
3 min.; silent. **
Process of excystation of trophozoite of E. Histolytica as photographed by bright-field and dark-field illumination (microphotography).

795. EXERCISE FOR HAPPY LIVING √ (1950) A II 6 EBF
(Keeping Healthy Series)
11 min. *
Role of exercise in building strong body and happy, healthy personality. Boy's disappointment at being only a "substitute" on neighborhood ball team; his negative attitude toward exercise; dream sequence in animation shows healthy effects of exercise upon muscles, stimulates boy to acquire good health habits through exercise.

796. EXFOLIATIVE CYTOLOGIC METHOD IN THE DIAGNOSIS OF GASTRIC CANCER (1951) A II 1 o ACS
22 min.; color. * **
Balloon technic for detection of stomach cancer; how balloon is inserted in stomach, inflated, deflated and withdrawn; stomach debris searched under microscope for cancer cells shed by small early tumors.

797. EXPANDING WORLD RELATIONSHIPS (1947) B IV STATE
11 min.; color.
Animated cartoon explaining technological, economic, and social changes during 150 years since time of Thomas Jefferson. Interdependence of nations.

798. EXPERIMENTAL MALARIA TRANSMISSION (4-008) (1946) A II 1r CDC
18 min.; also color. **
Methods of transmitting human malaria experimentally with mosquitoes. Importation of foreign strains of malaria parasites through return of infected soldiers; rearing and handling anophelines for experiment; technique of infecting mosquitoes and of handling those infected. How information regarding both mosquito and patient is recorded.

799. EXPERIMENTAL PSYCHOLOGY OF VISION, THE (1941) A II 4c IntFB
16 min.; silent. *
Chief phenomena and techniques of research in visual perception, illustrated and related to daily experience: phi phenomenon, optical illusions, color constancy, eye movements in reading, perception span, actual experiment in digit span.

800. EXPERIMENTAL STUDIES IN THE SOCIAL CLIMATE OF GROUPS (1941) A I 1 IO
33 min. *
Part I: Groups of children in autocratic, democratic and laissez-faire atmospheres, compared.
Part II: Same children in transition from one atmosphere to another Behavior typical of each atmosphere shown. Two basic reactions to autocracy: apathy and aggression. Horseplay and boredom develop in laissez-faire climate, "We-feeling" and independence in democratic group. Leader leaves group in test situation: work disintegrates in autocracy; goes on at full strength in democracy. Statistical graphs present quantitative findings.

801. EXPERIMENTAL STUDY OF ST. LOUIS ENCEPHALITIS VIRUS IN HORSES (1942) A II 1s HamM.
20 min.; color; silent. * **
Results of intracerebral inoculation of three horses with St. Louis strain of equine encephalitis virus, shown; Symptoms of equine encephalitis (horse sleeping sickness): rise in temperature (temperature charts), incoordination, sidling gait, weakness, twitching of the lips, and yawning. Collection of material at autopsy. Intracerebral inoculation of mice with samples of collected materials and disposal of carcass by burning.

802. EXPERIMENTAL THIAMIN DEFICIENCY (PMF 5169) (1950) A II 1 a USArmy-P
3 min. **

Laboratory demonstration of polyneuritis gallinarum; symptoms and signs of vitamin deficiency; recovery effected by use of intraperitoneal thiamin hydrochloride; carbohydrate metabolism and role of thiamin.

803. EXPLORATION WITH THE HIGH TEMPERATURE MICROSCOPE (1950) — C VIII Carbo
22 min.; color. **
Development and operation of high temperature microscope; use in observing chemical and physical phenomena at temperatures up to 4700°F.

804. EXPLORING SPACE (1941) (Cinescope Series) — C I TFC-Columbia
9 min. *
Trip through space, photographed in Hayden Planetarium (moon, planets, milky way, an eclipse, Baily's Beads, corona).

805. EXPLORING THE UNIVERSE (1937) — C I EBF
11 min. *
Overview of vastness of universe; complexity of motion in it. Refracting and reflecting telescopes. Stars and clusters in our galaxy; their movements in relation to each other and as part of a great galaxy. Universe expanding.

806. EXPLORING WITH THE MICROTIMER (1942) — D II AlleLud
12 min.; color. **
Use of camera designed to take pictures at 2000 frames per second for study of motion details too fast for unaided human eye. Views of microtimer camera and lighting set-up. Shaper cutting stainless steel as normally seen at 21 feet per minute; then as slowed down by microtimer to show details of cutting. Same procedure for standard stainless steel; hopping of tool shown. High speed punch slowed 200 times by camera shows top of steel fractures first. Value of microtimer as check on punch quality and design. Lathe cutting stainless steel at regular camera speed and at high speed; shots of milling machine taking half-inch cuts on stainless steel, at normal and at high speed; occasional pauses of tool and rocking of work. Battery of flashbulbs for illumination. Cutters on milling machine working under light oil film: stress patterns.

807. EXPLORING WITH X-RAYS (1941) — A II 1 q GE
40 min.; also 35 mm. **
Story of x-rays, from discovery to recent development, as told to medical student visiting office of radiologist. D. W. Coolidge explains x-rays.

808. EXTERIORIZATION OPERATION FOR CARCINOMA OF SIGMOID (1941) — A II lq BURKE
17 min.; color; silent. *
Three-stage operation with elapsed time of three weeks. Loop of sigmoid and lymph gland bearing area of mesocolon, delivered into wound; three-bladed Rankin clamp applied, loop and mesocolon removed with cutting cautery. Constricting type of carcinoma shown by dissection of specimen. First postoperative day proximal loop of sigmoid punctured to permit escape of gas; seventh postoperative day clamp has fallen off. Lightweight aluminum spur clamp applied; tightened each day. Eight days later spur is destroyed by pressure necrosis; clamp has fallen off. Twentieth postoperative day closure of colostomy completes operation.

809. EXTRA FEEDING PAYS (1947) — D I 2 I. I-A. A.
8 min.; color only.
Importance of storing feed for stock for consumption when green pasture is lacking (trench silo, haystack, irrigated pasture, etc.); well-fed stock is productive.

810. EXTRA FOREST DOLLARS (1952) — D I 5 USDA
14 min.; color.**
Known and little-known products of United States National Forests: logs and lumber; furniture stuffing, candy, cascara. Contribution of these forests to national economy.

811. EXTRAPERITONEAL CESAREAN SECTION (1940) — A II 1 h BURKE
10 min.; color; silent.*
Prima gravida thirty hours in labor; membrane ruptured, no engagement. Midline incision carried down through fascia; left rectus muscle separated by blunt dissection from bladder. Bladder separated by blunt dissection from lower uterine segment. Transverse incision in uterus and delivery of child. Placenta and membranes removed; uterus and muscles sutured. Drain placed in space between bladder and lower uterine segment for forty-eight hours. Bladder and unopened peritoneum assume normal positions. Closure of abdominal wall, requiring only suturing of fascia and approximation of skin.

812. EYES AND THEIR CARE √√ (1941) (The Human Body, Series 1) — A II 2 EBF
11 min.*
Structure, functions, disorders, hygiene of the human eye; defects, and their correction. Rudimentary rules for care of eyes.

813. EYES BRIGHT√√(1949) — A II 2 AVIS
10 min.; color.
Judy and three of her schoolmates (primary grade children) learn from school nurse, classroom teacher, from experiences at home and at play, and from reading, about basic care and protection of their eyes. From these various lessons, they formulate their own rules of eyesight preservation.

814. EYES FOR TOMORROW (1944) — A II 2 NSPB
22 min.*
Sound general health based on balanced diet and good habits stressed as prerequisite to

clear correct vision; pre-martial examination and pre-natal care recommended; care of eyes at birth. Ocular implications of contagious diseases; industrial hazards; importance of good lighting and safe working practices in eliminating dangers to eye; value and significance of regular ophthalmologic examinations. Symptoms, development, detection and treatment of glaucoma; visual screening tests, importance of providing special education facilities for the partially seeing child.

815. EYES THAT HEAR (1946) A II 6
15 min.** LEX
How deaf children are educated at Lexington School for the Deaf: admitted to nursery school at age of three, begin intricate process of learning to read lips and to speak, mainly through eye and sense of touch. Progress through regular academic program leading to completion of junior high school; extensive vocational training.

F

816. FABRICATING METAL AIRCRAFT √ (1945) A VI 1
(Aircraft Work - Metal Fabrication - 288) OE
14 min.*
Methods by which sheet metal may be cut and formed and assembled; mating major assemblies.

817. FACE IN THE MIRROR (1940) A VI 1
28 min. JamH
Good and bad selling techniques illustrated in dramatized story of a salesman on a shopping tour who sees himself as others see him.

818. FACE MILLING WITH A FIXTURE (1944) A IV 1
(Machine Shop Work - Horizontal Boring Mill - 226) OE
16 min.*
How to determine speed and feed; establish reference surfaces; make reference cut by end-milling flange; by milling face.

819. FACE PLANING UNEVEN SURFACES (1944) A VI 1
(Woodworking - Jointer - 304) OE
13 min.*
How to surface wide stock on one side; use pusher; make and use feather board; and backing block for facing thin stock.

820. FACE TURNING A COLLAR (1944) (Woodworking - Wood Lathe - 317) A VI 1 OE
16 min.*
How to prepare faceplate chuck; attach work to faceplate chuck; turn fillet; and taper turn a recess.

821. FACING, TURNING, BORING, GROOVING, AND CHAMFERING (1941) A VI 1 OE
(Machine Shop Work - Vertical Boring Mill - 18)
31 min.*
Operations and procedures followed when tooling up vertical turret lathe for operations requiring simultaneous use of both vertical and side heads.

822. FACTORY SAFETY (1938) A II 7c
10 min. JamH
Safety methods used in today's factories; importance of plant regulations and accident prevention.

823. FACTORY WORKER TURNS FARMER (1949) A IX 1
24 min. STATE
Young factory worker and wife by hard work and wise planning, with help of neighbors and employer, become owners of small chicken farm. Characteristics of people and economy that enable individuals to exercise initiative and enterprise in achieving satisfying life.

824. FACTS ABOUT FILM (1948) A VI 5
11 min.* IntFB
How projectionist may guard against common kinds of damage to film. What film is; how to pack film for shipping; why 16 mm is more fragile than 35; how easily it is damaged by scratching; ways it becomes scratched; how projector is designed to protect film; why it is important to keep gate and sprockets clean; how to watch for damage to sprocket holes, etc.

825. FACTS ABOUT PROJECTION (1950) A VI 5
11 min.* IntFB
Why projectionist must run over check list of necessary precautions in advance of scheduled showing of film. He must consider kind of power, source of power; light control facilities, ventilation; correct position of screen; setting up of projector and speaker, plugging in cords safely to guard against tripping; adjustment for correct size of image, final check on dust in aperture, proper control of volume and tone in relation to room, preparation for threading, etc.

826. FAITH IN OUR FUTURE E VI
14 min.; color.** Hancock
How New England village (near Boston) was planned and built to incorporate not only latest material improvements (like radiant heating) but also latest advantages in community living; a present-day counterpart of old New England village where neighborliness, thrift and diligence prevailed.

827. FALLING TIMBER (1948) D I 5
20 min.; color.* RARIG
Felling large timber with use of power saws and hand tools; importance of safety equipment and procedures; danger signals, head feller's responsibility in controlling traffic.

828. FALSE TRAUMATIC ANEURYSM OF THE RADIAL ARTERY (PMF 5083) (1948) A II 1 q USArmy
19 min.; color.**

Two cases of traumatic arterial aneurysms, one involving the radial artery; the other, the brachial artery; preoperative findings; surgical technique.

829. FAMILIES FIRST (1948) A VI 2
17 min.* NYYOUTH
Influence of family on child: how home life effects character growth of child. Causes of juvenile delinquency; how some may be eliminated or minimized by adjustment of children in family life. Linkage of child to parents to community. (See "Children in Trouble")

830. FAMILY, THE (1951) A VI 4
20 min. USArmy
How daily problems confronting family are solved when each member understands needs and desires of others, and family faces problems together.

831. FAMILY ALBUM (1947) E IX
30 min.; color.** GE
Simple lighting methods for indoor photography, illustrated.

832. FAMILY LIFE (1948) A IX 1
10 min.; also color.* CORONET
How disorganized and hard pressed family, through proper home management of schedules, responsibilities, privileges and finances, begins to enjoy life as it should; happiness to be gained from well-managed home; program for achieving it.

833. FAMILY TEAMWORK (1946) A VI 2
17 min.; color. FRITH
How American children and parents help each other pull together in home and in outside activities. Younger children help in simple household tasks (cooking, washing dishes, running errands, knitting, putting the baby to bed). Daughter does tricks with her horse; is proud of her goat that has won national prizes. Brother acts as judge at 4 H Club Fair. Children all help in farm work and current project of supplying goats to Navy.

834. FAR WESTERN STATES, U. S. A. √√ (1942) A IX 1
11 min.* EBF
Contrasts in climate, topography, people, population densities. Mining and lumbering. Growth of industry and commerce. Interdependence with other parts of Union. Strategic position: "gateway to Pacific."

835. FAREWELL TO CHILDHOOD (1952) AII4C
23 min.** MNFB
(Emotions of Every Day Living Series)
Story of adolescent girl and her parents; tribulations of growing up; need for tolerance and understanding on part of both parents and children.

836. FARM ANIMALS √√ (1937) D I 2
11 min.* EBF
Farmer in typical daily activities, tending cows, horses, pigs, sheep, goats. Feeding and milking cows, working with horses in fields, feeding pigs, shearing sheep. Newborn calves, colts, lambs, kids; sounds animals make.

837. FARM SEED STORY, THE (1951) D I 1
20 min.; color.** NatGar
How seeds are harvested from fields; scientific methods of removing weed seed mixtures and trash; testing for germination; grading for quality.

838. FARM SEWAGE DISPOSAL SYSTEM (1947) D I 3
11 min.; color.* UofNeb
Desirability of having sewage disposal system on farm; major steps in construction of septic tanks and installation of sewage disposal field.

839. FARM TO KITCHEN WITH A MARKET BASKET (1948) D I 3
10 min.; color.** AlaP
Why farmer must please housewife; what it takes to please her: crops of good quality, only the best harvested at right time; careful handling, good sorting, grading, packaging in attractive containers; careful loading to protect product; ice to preserve freshness en route.

840. FARM WORK SIMPLIFICATION (1949) D I 3
20 min.** SINCL
How farm work can be simplified by step-saving and labor-saving devices and methods. County agent explains four steps in work simplification: (1) break job down into all its details, (2) question each detail, (3) develop new method, (4) apply new method. Simplification of various kinds of farm work demonstrated.

841. FARMER DOES THE JOB, THE (1948) D I 3
30 min.; also color.** CateT
Importance of track-type tractor to wheat farming, livestock ranching, vegetable, corn, and fruit production.

842. FARMERS WORKING TOGETHER (1952) D I 3
19 min.; color.** USDA
Operations, organization, general activities of farmer cooperatives throughout the United States.

843. FARMING TAKES SKILL (1944) D I 3
11 min.; color. FRITH
Challenge of modern, scientific farming; current farm problems. Several crops shown through year; rhythm and flow of seasons. Farm management; farm labor (supervision supply); marketing; political and world conditions, influence on supply of crop and market price; machinery and mechanical problems; crop planning; influence of weather; planting;

cultivating; plowing; harrowing; irrigating; spraying; harvesting; soil; blight and insects.

844. FARMING TO STAY (1947) D I 3
17 min.; color.* AlaP
With help of county agent and kindly neighbor returning veteran restores old, run-down, home farm to productivity by establishing all-year-grazing system and balanced farming program. How better farming makes better citizens and better communities.

845. FATAL SECONDS (1950) A II 7d
10 min.** AETNA
How normally cautious father's failure to observe basic rule of safe driving (no passing another car on a hill) brought disaster to him and his family.

846. FEARS OF CHILDREN (1952) A II 4c
27 min.** MHFB
(Emotions of Every Day Living Series)
Fears and anxieties of six-year-old boy; how his relationship with his parents affects his emotional development.

847. FEATHERING THE NEST (1946) D I 2
30 min.; color.** UofGA
Advantages of selecting good chicks to raise as laying hens: how to cull out bad hens, treat for lice, etc. How to care for chicks, with small brooder using electric lights as source of warmth. Building portable range shelter. Treating chicks for sore head. Building a laying house; painting roosts with carbolineum for mite control; preparing feeders and nests. Proper feeding, watering of laying hens; cooling, candling, cleaning, grading and packing of eggs.

848. FEDERAL GOVERNMENT, THE -- PLAN OF ORGANIZATION (1951) A VIII CORONET
13 min.; also color.*
Structure and functions of United States Federal Government; division of responsibility, executive, legislative, judicial; problems arising from quasi-legislative and quasi-judicial boards and agencies.

849. FEEDING FARM ANIMALS (1946) D I 2 USDA
16 min.; also 35 mm.**
Basic facts on feeding of farm animals (practical advice from experienced farmer to young neighbor).

850. FEEDING THE PATIENT (1944) (Nursing - 404) A II 1 l OE
15 min.*
Factors which affect appetite and digestion; preparation of environment and patient for meal; proper balance of food and arrangement of tray; individualized feeding care; factors to be considered in after-care of patient.

851. FEELING ALL RIGHT (1949) A II 1 d MISS
30 min.; also 35 mm.*
Young farmer (in southern U.S.A.) who has contracted syphilis is persuaded to abandon "quack" remedies in favor of free cure by scientific treatment at state health center.

852. FEELING LEFT OUT? (Social Adjustment) (1951) A VI 4 CORONET
13 min.; also color.*
Boy wants to be part of gang, but is "left out"; concentration on this group isolates him from other classmates; he later awakens to many opportunities for friendships around him.

853. FELT BOARD IN TEACHING (1950) A VI 3
10 min.; color. Wayne
Various classroom uses of the felt board; its construction; materials to be used on it; its advantages.

854. FEMALE PELVIS (1944) A II 1 h
(Surgical Anatomy Series) BURKE
15 min.; color; silent.*
Relation of the adjacent organs to the uterus, tubes, ovaries; location of round, broad, and ureterosacral ligaments. Course of ureter and interior of bladder with trigone. How to separate bladder and uterus as for hysterectomy. Uterine and ovarian arteries. Dissection on unembalmed cadavers shows natural color and condition of tissues involved.

855. FEMORAL NERVE ANASTOMOSIS (PMF 5078) (1948) A II 1 q USArmy
7 min.; color **
Findings on preoperative examination of femoral nerve injury; technique used to close 4-cm defect; prognosis.

856. FENESTRATION OPERATION FOR OTOSCLEROSIS, THE (1947) A II 1 n NU
42 min.; color; silent.*
Surgical report film (animation) for specialists on principle of fenestration operation; indications; operation of patient, including preoperative preparation. Patient three weeks after operation.

857. FIELD TRIP (1949) A VI 3 VaDeptE
10 min.; also color.*
How to plan and make a field trip; trip to Virginia's Dismal Swamp used as example.

858. FIELD TRIP TO A FISH HATCHERY (1951) C II CORONET
10 min.; also color.*
Class learns operation of fish hatchery; processes of fertilization, hatching, growth; structure of fish; how fish are planted in streams and lakes.

859. FIGHT AGAINST THE COMMUNICABLE DISEASES, THE (4-080) (1950) A II 1d CDC UW
18 min.; color.**
Effects of communicable diseases illustrated;

how these diseases are spread. Responsibility of control vested in health departments. How problem is attacked in United States: organization, purpose, facilities and procedures of Communicable Disease Center at Atlanta, Georgia.

860. FIGHT FOR BETTER SCHOOLS, THE (1950) — A I 1 MTFF
20 min.*
How citizens of one American community (Arlington, Virginia) planned and worked to raise its public schools from among nation's poorest to high level. Similar work in Arkansas, Delware, on Long Island.

861. FIGHT SYPHILIS (1943) — A II 1 d USPHS
(A) 10 min.; also 35 mm.**
How to combat syphilis, emphasizing individual's role: blood tests, avoidance of exposure, proper treatment, avoidance of quacks.
(B) 20 min.**
Also the community's job: education, clinics, follow-up workers, to avoid drain on the nation in cost of supporting the blind, insane and unemployables crippled by syphilis.

862. FILARIASIS OF THE EYE CAUSED BY LOA LOA — A II 1c SAB
8 min.; color; silent.*
Chrysops dimidiata, an intermediate host of Loa loa, and Microfilaria diurna shown. Still picture of Filaria loa reproduced. Diagnostic points of symptomatology of Filaria loa: (1) Recognition of Microfilaria diurna in blood; (2) Adult worm may be brought to surface by application of heat; (3) Calabar swellings present, or history of them may be elicited. (4) Fact that patient visited or lived in endemic parts of Africa must be determined. (5) An eosinophilia, sometimes rising to 50%. (Dr. George P. Landegger).

863. FILING AN INTERNAL IRREGULAR SHAPE (1944) — A VI 1 OE
(Machine Shop Work--Metal-Cutting Band Saw - 240)
27 min.*
How to make file selection; set up metal cutting band saw machine for filing; file die; lay out punch using die as template; file punch; check filing of punch with die; and fine finish file.

864. FILING AND INSTALLING CHOCKS (1943) (Shipbuilding - Marine Machinery Installation - 97) — A VI 1 OE
15 min.*
How chocks are used in machinery installation; how surfaced smoothly and accurately, and adjusted to given tolerances; how machine is leveled by using chocks; measurements made for preparing chocks; Prussian blue and chalk used for adjusting chocks; feeler gages used in chock installation; how foundation and chocks are drilled for bolts.

865. FILING PROCEDURES IN BUSINESS (1950) — A VII CORONET
10 min.; also color.*
Typical filing system in action: central filing system functioning in business organization.

866. FILING TEMPLATE METAL (1943) — A VI 1 OE
(Sheet Metal Work - Templates - 129)
15 min.*
How to file square edge and remove burrs; how wrist is rotated for filing inside curves; how to file inside rectangle and remove fillets from corners.

867. FILM THAT WAS LOST, THE (1942) — B VI 2 TFC-MGM
(Passing Parade Series)
10 min.*
Early history of motion pictures; film preservation at Museum of Modern Art in New York City; sequences from early news reel pictures.

868. FIND THE INFORMATION (1948) — A IV 5 CORONET
10 min.; also color.
High school class and teacher, locating information on specific subject, index this material. They work from notes, use available aids (encyclopedia, guides, indices, etc.), card and cross-check so assembling card catalogue on said subject.

869. FINDING THE RIGHT JOB (1949) — A VI 5 CORONET
10 min.; also color.*
Story of a young man seeking his first job: presents job-lead sources, how to check them against applicant's purposes, how to weigh offers; how to present applicant's case in writing and in interview.

870. FINDING YOUR LIFE WORK (1940) — A VI 5 MAHNKE
22 min.*
Young person must know himself, his own native intelligence, special aptitudes, educational record, character. Interests and accomplishments as social assets; hobbies, their significance. Broad view of many vocations desirable; disagreeable as well as agreeable aspects of each vocation to be weighed. Contributions many departments of school can make to preparation of boys and girls for life work. Importance of coordination of mind and body; of planned foundation: health, character, general education, citizenship, special interests and abilities, ambition, willingness to work, knowledge of self, special training. Opportunities for success exist or can be made.

871. FINE GRINDING--SPHERICAL SURFACES (1944) — A VI 1 OE
(Machine Shop Work--Optical Craftsmanship--183)
15 min.*
How to set up lenses in multiple spindle machine; adjust grinding machine for grinding concave or convex lenses; wash and inspect lenses after fine grinding.

872. FINGER PAINTING (1949) E VIII
(Creative Hands Series No. 1) IntFB
5 1/2 min.; color.*
How to finger paint. Making unusual patterns in paint by applying by hand; making paper book jackets.

873. FINISH FORMING BY HAND (1943) A VI 1 OE
(Sheet Metal Work--Forming Sheet Metal--135)
16 min.*
Successive stages of forming with flat fibre strip; of shrinking large wrinkles with forming tool; marking excess metal with surface gage; checking finished work with contour template.

874. FINISHING MOLDED PARTS (1944) A VI 1 OE
(Plastics--474)
14 min.*
How to finish a typical molded part; trim gate with band saw; sand it with drum-sander; and finish and polish by tumbling.

875. FIRE (1947) C VIII
11 min.* EBF
Domestic use of fire. Principles of combustion. How fire is regulated in stove, furnace. Fire hazards. How to extinguish fire.

876. FIRE AND POLICE SERVICE (1947) A VI 5 MAHNKE
11 min.*
Why firemen must learn to use many tools, be experts in first aid and know theory of fire fighting. Their work and training explained. Many kinds of police work presented.

877. FIRE CALL (1949) D I 5
15 min.; color.** SoPULP
Need for fire control in southern United States under cooperative program (national and state services and private owners); effectiveness of volunteer firefighting and professional methods.

878. FIRE CONTROL (1935) A VI 1
10 min. JamH
Modern cylinder head, designed to provide efficient fire control; how spark plug fires in automobile engine, igniting gas which forces piston down in power stroke; part played by cylinder head in controlling speed with which gas burns. Shape of combustion chamber, designed so that engine extracts from gasoline burned all power it has for efficient engine performance.

879. FIRE IN THE FOREST (1951) D I 5
22 min.; color.** USDA
How fuel, weather and slope control fire behavior. Effect of fuels on color and action of smoke; burning behavior of bulky fuels and of flash fuels (dry grass, leaves, etc.) Effects of weather on fires: humidity, wind, temperature, time of day, season of year. Effect of slope and exposure.

880. FIRE ON THE FARM (1950) A II 7 a
12 min.; also color.** NaBFUN
How farm fire protection and prevention can be improved; safety procedures and precautions.

881. FIRE! PATTY LEARNS WHAT TO DO (1951) A II 7a FRITH
16 min.; color.
When fire threatens Garman home Patty obeys orders; stays out of way; drives goats to safety. The Garman children learn perils of fire; that hot air burns like flame; that wrecked buildings and fallen wires are dangerous.

882. FIRE PREVENTION (IN THE HOME) (1951) A II 7a EBF
14 min.*
Fire prevention in home; proper use of matches, home-type fire extinguisher; common danger spots; electric outlets.

883. FIRE WEATHER (1936) D I 5
20 min.; also 35 mm.** ComWB
Forest fire control in western (U.S.A.) national parks. Weather Bureau's cooperation with fire fighters in giving advance warnings of critical weather conditions and by furnishing continous reports of wind directions and velocities, atmospheric humidity and other factors contributary to spread of going fires.

884. FIREMAN√ (1939) A IX 1
11 min.* EBF
Duties and activities of company of firemen; how firemen prepare for emergencies by caring for equipment; by testing trucks, hose, ladders, life-saving equipment; by practicing fire-fighting methods. How firemen answer alarm, speed to fire, extinguish blaze.

885. FIRES MUST NEVER GO OUT, THE (1941) A III 1 ArkLGas
20 min. **
Natural gas operations; uses of gas in home. Gas meter explained.

886. FIRST AID (1941) A II 5
11 min.* EBF
Importance of training and practice in gaining knowledge of first aid. Proper procedures in caring for injured person from time of injury until medical aid arrives. Various techniques of treatment (for shock, to stop bleeding, to immobilize fractured bones).

887. FIRST AID (TF 1571, 1581) (1950-1) A II 5 USArmy-P
25 min.; 33 min.**
Part I: Major Wounds, Fractures and Burns. Why every man should know principles of first aid, in order to aid his fellows and himself in emergency, until help arrives. Proper first aid methods.
Part II: Every Day Emergencies. Proper first aid methods in treating foreign objects in eye, ear and throat; poisoning; snake bite; poison

ivy, oak and sumac poisoning; stomach ache; scratches; blisters; fainting; electrocution; drowning.

888. FIRST AID IN THE PREVENTION OF SHOCK (TF 8-1659) (1950) 26 min.** — A II 5 — USArmy-P

Proper and improper methods of handling injured, in order to avoid shock.

889. FIRST AID ON THE SPOT (1951) 11 min.* — A II 5 — EBF

Approved American Red Cross first aid techniques for wounds, burns, shock; splinting, controlling bleeding; artificial respiration.

890. FIRST AS A CHILD (1950) 20 min.; also 35 mm. * ** — A II 1 1 — CB

Program for care of crippled children (in Virginia) described in case of one child whose story is told from time he is referred for treatment to time when his condition is corrected and he resumes active life in community; many related services involved in treating the child as social as well as medical responsibility.

891. FIRST IMPRESSIONS (MN-1374) (1942) (Supervision Series) 21 min. — A VI 1 — USNavy

Indoctrination procedures: Supervisor instructs new employee; techniques of instruction planned to give employee good impression concerning work; how to follow through. This film is one of several films and filmstrips on introduction of new employee to work: how to develop cooperation; how to give orders; how to reprimand; how to prepare to instruct; how to give a shop demonstration, use blackboards, etc.

892. FIRST IN THE HEARTS OF FARMERS (1947) 24 min.** — A IX 1 — APFC

Some of agricultural experiences of George Washington, farmer, who records in diary his concern for "exhausted state" of his fields; tells how he took mud from the Potomac river and dug marl (a crude limestone) from gullies for betterment of his lands.

893. FIRST PRINCIPLES IN GRINDING (1943) 45 min.** — A VI 1 — Carbo

Composition and manufacture of abrasive wheels; how some wheels are used in common grinding procedures of machine shop.

894. FISH IS FOOD (1947) 11 min.; also 35 mm. — A III 3 — EYS

How New York City gets its daily supply of fresh water fish, shellfish and other seafood; Fulton Fish Market Operations. Fishing on the Banks, on the Great Lakes, in the Atlantic, the Gulf, and in Chesapeake Bay. Long Island oyster beds. Methods of catching, handling, shipping, etc. The value of fish as food.

895. FISHING FOR A LIVING (1949) 11 min.; also color. — D III — JHUNT

Maintenance of fishing boats and nets in port, preparations for sea. Leaving port, searching for fish; locating a school, setting net. How it works. Hauling in net; stowing fish in refrigerated hold.

896. FISHING IS THEIR BUSINESS (1950) 18 min.; color.** — D III — CateT

Briefly summarizes operations of a variety of commercial fishing boats; emphasizes use of diesel marine engines in commercial fishing.

897. FIT TO WIN (1937) (News World of Sports Series) 10 min.* — A II 6 — TFC-Columbia

Portrayal of various athletic exercises and activities, as aids to health: Indian club drill; rings, parallel bars, horses. Joe Louis chops and saws wood; uses punching bag. Team training for rowing, baseball, football.

898. FITTING AND SCRAPING SMALL BEARINGS √ (1942) (Machine Shop Work--Bench Work--36) 24 min.* — A VI 1 — OE

Scraping of split and solid bearings; laying out and chipping of oil grooves; fitting of shaft to bearings.

899. FIVE COLORFUL BIRDS (1944) 10 min.; color.* — C II — CORONET

Goldfinch, cedar waxwing, yellow-headed blackbird, red-headed woodpecker, bluebird photographed feeding, nesting, rearing young. Coloration as sex attraction.

900. FIXED GAGES (1941) (Machine Shop Work--Precision Measurement--3) 17 min.* — A VI 1 — OE

Use of snap, plug, ring, thread, screw-plug, and flush-pin gages; their importance in modern mass production.

901. FLATBOATMEN OF THE FRONTIER √ (1941) 11 min.* — A IX 1 — EBF

Phase of pioneer agricultural economy (U.S.A.), early nineteenth century. Ohio Valley farmers at work: felling trees, preparing lumber, building flatboat to carry produce down river to market. Farmers' families

prepare for trip. First lap of journey downstream.

902. FLOOD WEATHER (1937) C VIII
42 min.; also 35 mm.** ComWB
Progress of great flood of 1937 in Potomac and parts of Ohio and Mississippi basins (U.S.A.). Weather Bureau's flood forecasting procedures and control and relief activities.

903. FLORIDA: WEALTH OR WASTE? (1947) A IX 1 SEFPS
22 min.; color.
Struggle of state of Florida to achieve permanent prosperity despite hurricanes, unexpected freezing weather, fires, unstable markets and dependence on unpredictable tourist trade. All parts of state pictured. Improvements in agriculture and advances in industrialization shown; their relation to welfare of people of Florida.

904. FLOW OF ELECTRICITY (1946) C VIII YAF
10 min.*
Elementary science film built around inquiries of a boy and girl: factors which affect flow of electricity through simple electrical circuit; electron theory introduced; simple circuit in home situation.

905. FLOWER ARRANGEMENTS FOR THE HOME (1950) E IV IntFB
20 min.; color. *
Parts I and II: Demonstrations of practical flower arrangements for home.

906. FLOWERS AT WORK √√ (1939) C III
11 min. * EBF
Main function of flowers, seed production: sepal, petal, stamen, pistil, anther, pollen, style, ovary. Different methods of pollination of various types of flowers. Bee in cross-pollination.

907. FLUE GAS ANALYSIS (ORSAT APPARATUS) √ (1944) A VI 1 OE
(Engineering--Mechanics--367)
19 min.*
How to set up Orsat gas analyzer; how to absorb and measure amounts of carbon dioxide, oxygen, and carbon monoxide in sample; how to calculate amount of nitrogen.

908. FLUORIDATION STORY, THE (1951) AII 1e9 USPHS
3 min.; color. **
How communities can reduce tooth decay by adding sodium fluoride to water supplies; economy and simplicity of doing so. (Filmograph primarily for television).

909. FLY DENSITY SURVEY BY THE GRILL METHOD (4-086)√(1949) A II 3a CDC-UWF
6 min.; color.**
Nature, construction, and use of fly grill in measuring fly density. How fly density in different places can be compared by counting number of flies which alight on fly grill, constructed by evenly spacing slats on light rigid frame; counting flies facilitated by dividing grill into quarters and by painting ends of alternate groups of slats. How survey is conducted and recorded.

910. FONTANA DAM (1947) D II
21 min.; color.** TVA
Building of Fontana Dam across Little Tennessee River in Tennessee Valley Authority program; production methods used in dam construction.

911. FOOD (1945) A III 3
15 min.* YAF
Storing, salting, canning, dehydrating, freezing methods of food preservation. Reasons why food spoils, explained.

912. FOOD FOR THOUGHT (No. 7) (1950) A III 3 F&WS
15 min.; color.**
Effective planning, purchasing, preparing, displaying and serving techniques utilized in school lunch program.

913. FOOD STORE (1945) A III 3
11 min.* EBF
Mother and children make careful selection of foods from neighborhood food store.

914. FOOD THAT BUILDS GOOD HEALTH (1951) A III 3 CORONET
10 min.; also color.*
How eating proper foods in right amounts regularly contributes to building strong, healthy bodies.

915. FOODS AND NUTRITION √√ (1939) A III 3 EBF
(The Human Body Series 1.)
11 min.*
Normal dietary requirements analyzed; carbohydrates, fats, proteins, minerals, vitamins, water. Absorption, transformation and storage of sugars and fats. Metabolism of carbohydrates, fats, proteins. Basal metabolism rate. Results of deficiencies in minerals and vitamins.

916. FOOTBALL TODAY (1948) A V 2
26 min. OFF
Play situations illustrating football rules; kickoff, followed by violations of the snap, delay of game, rights of kicker and receiver on punt formation; methods of substitution, types of fumbles, passes, and handed ball, protection for passer and kicker.

917. FOR ALL THE AGES (1950) A VII
13 min; color.* IAICM
Manufacture and processing of ice cream, from cow to consumer: milking, cooling, transportation of milk; operating processes of

modern ice cream plant; packaging and hardening. Dietary value of ice cream.

918. FOR SAFETY'S SAKE (1944) A II 7c
15 min.; also 35 mm.* NSC
How to inspect, use and care for portable power tools.

919. FOR SOME MUST WATCH (1949) A VII ILI
28 min.**
How life insurance agent served three families in crises; how solution of their problems was effected through his wisdom and understanding.

920. FORCE AND MOTION (1949) C VIII
10 min.; also color.* CORONET
Young boy investigates force, mass, acceleration; their interrelationships; basic laws of mechanics; Newton's three laws of motion; inertia, momentum and reaction.

921. FORCE OF GRAVITY (1949) C VIII
10 min.* YAF
Theory of gravity and its observable effects, explained.

922. FOREST CONSERVATION√ (1949) D I 5 EBF
(Living Forest Series, Part III)
11 min.; color.
Dire results of greedy and ignorant exploitation of forests. Conservation methods in use; need of continuing them.

923. FOREST GROWS√ (1949) D I 5
(Living Forest Series, Part I) EBF
10 min.; color.
Elements that contribute to growth and maturity of forest. Forest zones in relation to temperature and rainfall. "The climax forest" defined.

924. FOREST PRODUCES√ (1949) D I 5
(Living Forest Series, Part II) EBF
11 min.; color.
Development of forest by man's exploitation of its life-giving resources. How timber grows; watershed, underground reservoir. Forest use in physical and spiritual recreation.

925. FORESTRY AND FOREST INDUSTRIES (1946) A VI 5 MAHNKE
11 min.*
Work of forest ranger, both governmental and commercial; logging operations. Many jobs presented: lumber mill sawyer, trimmer and grader, etc. Jobs in allied fields described.

926. FORESTS AND CONSERVATION (1943) D I 5 CORONET
10 min.; also color.*
How United States government and a progressive lumber camp joined forces to save trees through program of selective logging, reforestation, and fire prevention. Fire-fighting sequence shows forest's most deadly enemy at its devastating work.

927. FORGE HARDENING AND TEMPERING FARM TOOLS (1944) A VI 1 OE
(Farm Work--Forging--193)
17 min.*
How to heat carbon-steel tools for forge sharpening; how to sharpen, harden, and temper plow share and cultivator shovel; how to identify tempering colors.

928. FORGE WELDING √ (1944) A VI 1
(Farm Work--Forging--192) OE
12 min.*
How to maintain clean, deep, hot fire; how to heat mild steel for forging; how to upset and scarf round stock; how to make lap weld; how to shape and hammer refine weld.

929. FORGING WITH A HAND FORGE √ (1944) A VI 1 OE
(Farm Work--Forging--191)
13 min.*
How to clean the tuyere and build open fire in forge; how to lay out and mark stock; how to heat mild steel for forging; and how to forge an eye.

930. FORGOTTEN VICTORY (1939) D I 1 TFC-MGM
(Passing Parade Series)
11 min.*
How Mark Carleton, United States research worker, developed rust-and-blight proof wheat (Kirbanka); his struggle to introduce the hard grain.

931. FORMING ON A HAND-OPERATED BRAKE √ (1944) A VI 1 OE
(Sheet Metal Work--Forming Sheet Metal--134)
17 min.*
How to lay out work for bending in hand-operated brake; set up brake for bend angle and bend radius; operate brake; check test pieces and finished work.

932. FORMING ON ROTARY MACHINES √ (1944) A VI 1 OE
(Sheet Metal Work--Forming Sheet Metal--290)
17 min.*
How to make bend lines on blank sheet from template for forming on slip roll machine; and form shallow and final bead.

933. FORMING ON THE STRETCHING MACHINE √ (1944) A VI 1 OE
(Sheet Metal Work--Forming Sheet Metal--251)
17 min.*
How to form skin panel on stretch press; including setting up machine, making necessary adjustments for and handling production run.

934. FORMING WITH A DROP HAMMER (1944) (Sheet Metal Work--Forming Sheet Metal--291) 17 min.* — A VI 1 OE

Purpose and nature of drop hammer forming; how to operate pneumatic hammer; set up punch and die.

935. FORMING WITH RUBBER ON THE HYDRAULIC PRESS√(1944) (Sheet Metal Work--Forming Sheet Metal--133) 11 min.* — A VI 1 OE

How sheet metal parts are formed with rubber on hydraulic press; how to set up work in press; and operate press.

936. FOUR HUNDRED YEARS IN FOUR MINUTES √ (1945) 23 min.; color.** — A III 3 GMILLS

Historical sketch of "first cake ever made," 400 years ago. Graduate home economist then demonstrates how cake is made quickly today: preliminary preparations, selection of ingredients and utensils, accurate measurements, proper mixing and correct baking.

937. FOUR POINT SAFETY HOME (1944) 16 min.; also 35 mm.** — A II 7a NYH

Four points of a safe home: maintenance, good housekeeping, protection of children, cultivation of safe habits.

938. FOUR WAYS TO DRAMA (1950) 33 min.* — E III UCLA

Comparative advantages and disadvantages of the four media of dramatic art demonstrated in presentation of identical episode in four versions (stage, radio, television, motion picture).

939. FOUR-H FORESTRY CAMP (1950) 10 min.; color.** — A I 5e UofGA

Georgia 4-H Club with special activities in forestry. Classes in fire-fighting, tree identification, care of the forest. Visit to paper mill.

940. FOUR-H GIRLS BAKE SPONGE CAKES (1950) 23 min.; color; silent.* — A III 3 OREGON

Two girls mix and bake sponge cakes (demonstration), one using hand beater, the other power beater.

941. FOX AND THE ROOSTER (1951) 11 min.* — A IV 2 EBF

Aesop's fable of the fox and the rooster, (live animals play roles).

942. FRACTURES: AN INTRODUCTION (1948) 27 min.; color.** — A II 1q J&J

Fracture as regional derangement of function as well as anatomy. Mechanism, pathology, repair and management of fractures explained. Normal and abnormal bone healing processes; clinical implications. Anesthesia: indications, purposes, dangers. Principles and techniques of reduction; maintenance of reduction. Traction. Preparation and use of plaster casts.

943. FRANCE: BACKGROUND FOR LITERATURE (1950) 10 min.; also color.* — A IV 2 CORONET

French settings associated with works of Hugo, Balzac, de Maupassant, Dickens, Poe.

944. FRANKLIN WATKINS (1950) 30 min.; color.* — E VIII AF

Franklin Watkins, at work. Detailed analysis of artist's portrait technique. Preparation of canvas, roughing in figure, refinements of form and feeling. Spiritual and aesthetic forces at work within artist; instincts that direct his brush. Watkins' "Fire Eater." Studies and sketches of his largest works. His artistic philosophy.

945. FRED MEETS A BANK (1946) 10 min.; also color.* — A VII CORONET

Boy learns about handling checks, opening savings accounts, and securing loans; visits departments of the bank.

946. FREE HORIZONS: THE STORY OF OUR NATIONAL PARKS AND FORESTS (1946) (The World Today Series) 18 min.* — A IX 1 TwC-FF

How United States Government acted to establish and maintain National Parks for use and enjoyment, and National Forests for conservation and protection of timber supply.

947. FREEDOM OF THE PRESS (1950) 20 min. — A VIII STATE

Story of free press in the United States from Zenger's "Weekly Journal" to date.

948. FREEDOM TO LEARN (1944) 19 min. — A I 1 STATE

Educational services of Iowa State University; institution's facilities; diversity of subjects taught; educational methods; extension services to people of State. How education serves both vocational and cultural purposes.

949. FREEZING FRUITS AND VEGETABLES (1946) 20 min.; color.** — A III 3 USDA

How to prepare and package fruits and

vegetables for freezing in home freezers or in commercial locker plants; step-by-step closeups of recommended methods for corn, broccoli, strawberries, peaches; special home-made equipment for filling and sealing packages, demonstrated.

950. FREEZING FRUITS AND VEGETABLES AT HOME (1946) — A III 3 NYSExt
22 min.; color.*
How to freeze corn and broccoli, strawberries and peaches; how to select correct variety, prepare, blanch, pack into containers, freeze, and store.

951. FREIGHT HANDLING SAFETY (1950) — A II 7c NSC
11 min.*
Standard procedures for handling materials; how to lift, carry, pile; how to operate hand truck; freight car and motor truck loading hazards; how to open freight car doors safely; how to lower and anchor dock plates, handle "sleepers". Accident case histories of three typical shipping workers and cartoon character.

952. FREIGHT YARD, THE (Revised 1952) — A VI 1 NYCent
20 min.**
Operations of freight classification yard; work of tower operator and classification experts; making up a train; intercommunication between tower and yards, use of teletype in routing cars; inspection and servicing.

953. FREIGHTER AT SEA (1948) — B V 2 ACADEMY
14 min.; also color.
Importance of ocean freight carriers. Duties of officers and crew of modern freighter illustrated; how ship is operated.

954. FREIGHTER IN PORT (1948) — B V 2 ACADEMY
17 min.; also color.
Various parts of modern freighter defined, their use and operation explained; work of officers and crew while vessel is in port: lifeboat drill, loading of cargo, final preparation for sailing etc.

955. FRENCH FOR BEGINNERS (1947) — A IV 4 MAHNKE
10 min.*
Simple slow-paced commentary in French on life in French-speaking Canada as shown on screen.

956. FRENCH INFLUENCES IN NORTH AMERICA (1951) — A IX 2 CORONET
10 min.; also color.*
Influences of French Empire upon North American Continent, Gulf of St. Lawrence to mouth of Mississippi; French culture reflected in language, dress, architecture, religion, art forms; forts, trading posts, scenes of discovery.

957. FRENCH TAPESTRIES VISIT AMERICA (1948) — E IV AF
27 min.; color.*
French cruiser in New York harbor, November 1947, brings tapestries French government sent for display in New York and Chicago; discharge of cargo; preparations for hanging of show in New York. Examination in historical sequence of outstanding tapestries in collection. Eleven tapestries shown in detail, six from medieval period, three from 16th through 18th centuries, two from 1940's.

958. FRICTION (1950) — C VIII YAF
11 min.*
Friction, restraining force to be contended with in everyday life; ways to reduce friction when it is undesirable; ways to increase, when helpful.

959. FRIEDREICH'S HEREDITARY ATAXIA AND LITTLE'S DISEASE AND DOUBLE ATHETOSIS (1944) (Neuropsychiatric Disorders Series) — A II 4d SPGood
16 min.; silent.*
Four patients showing classical signs of disease; two brothers in one family, two sisters in another. Various forms of dyskinesias of congenital origin, in six patients; abnormal movements predominantly of extrapyramidal type. (Diffuse pathology of these cases makes exact classification inadvisable; there may be fragmentary choreiform, athetotic and dystonic elements.)

960. FRIEND IN BLUE (1950) — A VI 3 UMINN
30 min.; color.
Work of typical public health nurse; she visits homes of patients having tuberculosis, diabetes, and heart disease. Her duties with young mother groups, poster campaigns, x-ray clinics, homes for aged. Need for cooperation of all other public agencies.

961. FRIEND OR FOE (1946) — A II 7a AETNA
17 min.; color.**
Preparedness and precautionary measures which can be taken by average family to protect home from fire. Safeguards against death, burns or suffocation by fire, explained.

962. FRIENDSHIP BEGINS AT HOME (1949) — A V 4 CORONET
25 min.*
Importance of valuing the friendships in the home--the fun of doing things with the family group and treating parents, brothers, and sisters with respect and affection. Addressed to adolescents.

963. FRISKY, THE CALF (1950) — A IV 2 CORONET
10 min.; also color.*
Children learn how a little calf grows up.

964. FROG√√(1931) C II
10 min.* EBF
Development of frog from tadpole embryo to adult form (close-up, time lapse photography and cinemicrography), physical characteristics, natural traits and usual environment.

965. FROM BUFFALO TO CATTLE (1949) A I 1 USIndS
22 min.; color.
United States Indian Service's program of Indian education illustrated in classrooms, farms, laboratories, shops of typical reservation twelve-grade school. How academic learning and practical experience are integrated shown in steps by which pupils are taught cattle business. How vocational student may earn cattle for foundation herd; borrow additional heifers on repayment basis, so graduating into business of his own.

966. FROM CREEPING TO WALKING (1934) A II 4c EBF
11 min.*
Normal development from creeping to walking in human infant; mechanics of locomotion and stages by which infant attains upright walking posture.

967. FROM ONE CELL (1950) A II 1o ACS
14 1/2 min.; color.* **
Embryonic, regenerative and degenerative cell behavior. Diagramatic and live-action sequences review phenomenon of generative growth. Abnormal growth of cancer. Unanswered questions of abnormal cell behavior presented to provoke discussion.

968. FROM SMALL BEGINNINGS √√(1947) D I 3 I.I-A.A.
7 min.; color.
Importance of proper (simple) farming equipment; how it may be procured, illustrated.

969. FROZEN FRESHNESS (1946) A III 3 GenM
30 min.; color.**
How to select and prepare foods for freezing; preparation for freezing and actual freezing process, illustrated. How to prepare frozen foods for serving, all demonstrated at a country fair.

970. FUEL OIL PACKAGE, THE (1949) A VII Soco-V
20 min.; color.**
How laboratory and research department contribute to improvement of fuel oil; cracking and testing; operation of fuel oil burner, different settings, safety factor. Importance of laboratory research to improvement of goods, fuel, equipment.

971. FUELS AND HEAT√ √(1938) C VIII EBF
11 min.*
Heat energy in terms of source, storage in form of fuel; practical utilization. Manufacture and storage of carbohydrates in plants; role of carbon in burning of fuels; formation of coal and petroleum; process of combustion, molecular action in relation to heat and temperature. Steam and gasoline engines.

972. FUN OF MAKING FRIENDS, THE (1950) A VI 2 CORONET
10 min.; also color. *
How children of lower primary school grades make friends by learning to work and play with others, finding qualities to admire in others, telling others about their good points; importance of continuing to make new friends.

973. FUN ON THE PLAYGROUND (1947) A V 2 EBF
11 min. *
Three types of constructive games played by children during school recess.

974. FUN THAT BUILDS GOOD HEALTH (1950) A V 2 CORONET
10 min.; also color. *
Primary school children learn that balance between quiet play and active play is important to having fun and enjoying good health.

975. FUNCTIONAL ANATOMY: THE REPRODUCTIVE TRACT OF A COW (1951) D I 2 IOSC
55 min.; color. *
Part I. (25 min.) Reproductive tract of a cow explained (action close ups, diagrams, dissection).
Part II. (30 min.) Artificial insemination; steps in fetal development.

976. FUNCTIONS OF THE NERVOUS SYSTEM (1949) A II 1 KB
12 min. *
Nervous system and its functions described and illustrated; emphasis upon its regulation of all healthy bodily functions.

977. FUNDAMENTALS OF ACOUSTICS (1933) C VIII EBF
11 min. *
Modification of sound waves between source and hearer; physiology of hearing. Velocity of sound, refraction, range of hearing, intensity, attenuation, frequency, reverberation, focus. Modern sound communication.

978. FUNDAMENTALS OF DIET (1943) A III 3 EBF
11 min. *
Basic types of food needed in man's daily diet; contribution of each to body-building. Sources of food; interchange of energy between plants and animals, including man. Examples of controlled experimental feeding.

979. FUNDAMENTALS OF END CUTTING TOOLS (1942) A VI 1 OE
(Machine Shop Work--Single Point Cutting Tools--43)
12 min. *

Parts of radius tool, threading tool, sheer cut finishing tool, round nosed finishing tool, side facing tool; correct setting of tools; type of cut each is ground to make.

980. FUNDAMENTALS OF FILING√ (1942) A VI 1 OE
(Machine Shop Work--Bench Work--41)
12 min. *
Use of single cut files; draw filing with single cut fine file; difference between single cut and double cut files.

981. FUNDAMENTALS OF LAND SURVEYING (1945) A VI 3 UofC
20 min.
Surveying techniques portrayed: taping over level and sloping ground ("breaking chain"); use of plumb bob, chaining pins, line rods, hand level.

982. FUNDAMENTALS OF MASSAGE (1944) A II 11 OE
(Nursing Series--414)
12 min. *
Proper positions of patient for massage; how to perform superficial and deep stroking; importance of rhythm in stroking; how to knead; to perform friction; value of each type of massage movement.

983. FUNDAMENTALS OF PUBLIC SPEAKING (1950) A IV 1 CORONET
10 min. ; also color. *
How to analyze speech situation; how to plan and deliver an effective speech; importance of public speaking in everyday life.

984. FUNDAMENTALS OF SIDE CUTTING TOOLS√(1942) A VI 1 OE
(Machine Shop Work--Single Point Cutting Tools--42)
11 min. *
Name and location of each part of the tool; relationship between each part and job the tool has to do.

985. FUNDAMENTALS OF SOFTBALL PITCHING (1941) A V 2 Transf
10 min; silent. *
Basic types of soft-ball pitches explained and illustrated in regular and slow-motion photography.

986. FUNDAMENTALS OF TENNIS (1942) A V 2 Transf
22 min. *
Basic tennis strokes (backhand, forehand, service, volley, half-volley) and strategy explained and illustrated (Donald Budge).

987. FUNGUS PLANTS√√(1939) C III EBF
11 min. *
Major types of mushrooms and other fungi; growth; method of reproduction. Close-up and time-lapse photography, animated drawing, cinemicrography used. Structure of spores; protoplasm in filaments shown.

988. FUR AND FEATHERS IN ALASKA (1946) A V 2 HL
9 min. ; color also. *
Hunting bear on Alaskan islands. Incidentally, the birth of an iceberg shown.

989. FUR TRADE (1945) D III YAF
11 min. *
How fur-bearing animals are hunted and trapped; processing of pelts.

990. FUR TRAPPER OF THE NORTH (1951) A IX 2 EBF
11 min. ; color. *
Life of fur trapper in northern wilds: summer and early autumn preparations; autumn and winter trapping; springtime and marketing of pelts.

991. FURNITURE CRAFTSMEN √ (1940) A VI 1 EBF
11 min. *
Work of master artisans: designers, joiners, carvers, upholsterers, finishers in fashioning custom built furniture: patternmaking, laying out, band sawing, power planing, joining, lathe turning, grooving, gluing, carving, finishing. Interrelation of hand-and machine-tool operations and skills required for precision woodworking.

992. FUTURE FOREST IN THE MAKING, A (1943) D I 5 NYSExt
15 min. ; color. *
How to lay out field and plant trees for reforestation; type of land that can be reforested; tree planting operations; how to order trees; "heeling in"; close-ups of planting (in slow motion).

G

993. GAGE BLOCKS AND ACCESSORIES√(1944) A VI 1 OE
(Machine Shop Work--Precision Measurement--246)
23 min. *
Why accessories are used with gage blocks; how to inspect plug gage, adjustable snap gage, profile gage, ring gage, screw-thread.

994. GALLBLADDER AND BILE DUCTS (1941) A II 1q BURKE
(Surgical Anatomy Series)
15 min. ; color; silent. *
Surgical anatomy encountered during biliary tract surgery. Right and wrong way of grasping common duct. All branches of hepatic artery followed in detail, as well as course of cystic, hepatic, and common ducts; demonstration of termination in ampulla of Vater. Dissection of unembalmed cadavers shows natural color and condition of tissues involved.

995. GARDEN FOR ABUNDANCE (1947) D I 3 NatGar
15 min. ; color. **

When to plant garden; how to condition soil, plant seeds; when to harvest; protection against insects; canvass hose irrigation.

996. GARDEN OF THE SUN (1950) A IX 1
22 min. ; color. ** TULARE
How people live in Tulare County, State of California; agriculture and agricultural methods, industry, recreation, schools, churches sequences points of historical interest.

997. GARDENING√√(1940) D I 3
11 min.* EBF
Two children plant and care for garden; development of plant life, importance of applying labor and knowledge in order to obtain maximum yield.

998. GAS FOR HOME AND INDUSTRY (1949) D II EBF
(World Energy Resources Series)
17 min. *
Fuel gas as source of energy in modern society; production of manufactured gas; how natural gas is obtained; gas conservation.

999. GASOLINE ENGINE (OTTO CYCLE), THE (1952) C VIII McG-H
(College Physics--Heat and Light Series)
6 1/2 min.
Intake and compression strokes, combustion, power stroke, valve exhaust, exhaust stroke (represented graphically). Disturbing factors: friction, acceleration, turbulence, heat conduction eliminated. Otto cycle traced on pressure-volume diagram. Concept of thermal efficiency discussed.

1000. GASOLINE FOR EVERYBODY (1946) A VII ETHYL
13 min. **
How crude petroleum is located below earth's surface by use of supersensitive instruments; test wells. Drilling for oil. How crude oil is delivered to refineries; pipelines, railroads, tankers. Four main types of refining. How crude oil is converted into gasoline: straight run, thermal cracking, catalytic cracking; polimerization.

1001. GASTRIC RESECTION WITH ANTE-COLIC ANASTOMOSIS FOR DUODENAL ULCER (1950) A II 1q BURKE
15 min. ; color; silent.*
Technique for anterior Polya type of total gastrectomy for duodenal ulcer. Omental bursa entered to avoid damage to transverse mesocolon. Litigation of vessels along gastrocolic omentum, illustrated; litigation along lesser curvature of stomach, shown. Closure of duodenal stump; isolation and marking of antemesenteric border of jejunal loop, presented in detail. Making the gastrojejunostomy.

1002. GASTROINTESTINAL CANCER: THE PROBLEM OF EARLY DIAGNOSIS (1950) A II 1o ACS
(No. 3, Medical Series)
33 min. ; color.* **
Early use of modern diagnostic techniques, permitting effective use of modern surgical procedures, can reduce cancer fatalities. Five sites of gastrointestinal cancer: esophagus, stomach, small intestine, large intestine and rectum. For most sites, simple laboratory tests can help determine whether or not patient who reports vague symptoms referable to the gastrointestinal tract is potential cancer case. Detailed descriptions of diagnostic procedures which lead to discovery of cancers in these sites mentioned, at an early stage of their development. Emphasis on imperativeness of early, accurate diagnosis and immediate treatment.

1003. GENERAL EFFECTS OF COLD ON MAN (TF 8-1690) (1951) A II 1 USArmy-UWF
12 min. **
Measures necessary for human body to survive three kinds of cold weather: raw, wet cold, cold with heavy winds, deep still cold. Treatment of cold weather effects.

1004. GENERAL EFFECTS OF HEAT ON MAN (TF 8-1691) (1951) A II 1 USArmy-UWF
12 min. **
Harmful effects of heat on human body.

1005. GENESIS OF EMOTIONS (1948) A II 4c SPITZ
(Studies--Problems in Infancy)
30 min. ; silent. *
How infant develops interest during first month; differentiation of first positive emotions from this interest shown by smiling response in children ranging from two to six months; factors operative in smiling response. Differentiation of negative emotion in four-months-old child; negative emotion's preponderant role between eighth and tenth month; development of other emotions; role of negative emotion in process of environmental discrimination. Wide range of emotions developed by end of first year.

1006. GENTLEMEN OF THE HIGHWAY (1951) A II 7d AETNA
16 min. **
How skilled operators are trained by modern, progressive bus lines. Driver's qualifications, training, handling of equipment.

1007. GEOGRAPHY OF NEW ENGLAND (1951) C V CORONET
10 min.; also color. *
New England described as network of relationships between people and places, activities and resources; effects of glaciation on whole area; development of specialized industries; distribution of population; economy and culture of area.

1008. GEOGRAPHY OF THE SOUTHERN STATES (1952) C V CORONET
10 min.; also color. *

Basic geographic elements of climate and soil as related to human activities of invention and change, developing new methods, and new attitudes. Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Florida, Louisiana, Mississippi, Arkansas are states considered.

1009. GEOGRAPHY OF THE SOUTHWESTERN STATES (1952) — C V — CORONET
11 min.; also color. *
Distinguishing features of region comprising Texas, Oklahoma, New Mexico, Arizona; emphasis on history and people.

1010. GEOLOGICAL WORK OF ICE√√(1935) — C VI — EBF
11 min. *
How through geologic ages ice has changed surface of earth; how expansion, contraction and movement of ice has effected rock and soil. How glaciers form, move and alter terrain features. Pleistocene glaciation period explained.

1011. GEOMETRY AND YOU (1948) — C VII 3 — CORONET
10 min.; also color. *
Practical demonstration of everyday importance of geometry. In constructing model porch boys use protractor and ruler to apply their study of such figures as rectangles, triangles, and circles, and such principles as congruence, similarity, and symmetry.

1012. GERMAN LANGUAGE, THE (1951) — A IV 4 — UWis
40 min. *
Basic sounds of German pronounced in simple sentences using present tense; dialogue and repetition (for imitation). Speakers are two young educated persons from North Central Germany. In four films, subjects of dialogue as follows: (1) Arrival in Germany of friend from America; (2) Departure for a skiing trip; (3) Students planning picnic; (4) Building a new house.

1013. GERMINATION OF SPORES OF BACTERIA (1932) — A II 1c — SAB
2 min.; silent. *
Nutrient medium, 2% agar and 2% peptone at pH 7.4; interval of exposure not given. Equatorial germination illustrated by Bacillus subtilis Cohn. Germination ordinarily by stretching illustrated by the Michigan strain of B. subtilis. Polar germination illustrated by B. cereus Frankland. Each type of germination shown. (Dr. S. Bayne-Jones).

1014. GETTING YOUR MONEY'S WORTH (1949) — A VIII — VaDeptE
15 min. *
Work of state and local weights and measures officials; importance to public of accuracy in weights and measures.

1015. GIFT OF GREEN, THE√√(1947) — C III — SugReF
20 min.; color.
Photosynthesis; how chlorophyll in leaves of plants uses sun's energy to combine carbon dioxide and water to make sugar; conversion of sugar into other products. Importance of sugar as foundation of life.

1016. GIFT OF TS'AY LUN (PAPER), THE√√(1944) — A VII — HamPaC
33 min.; also color. **
First paper made (105 A.D., China); importance of paper in development of civilization (from cave drawings to Gutenberg).
How paper is made today in modern paper mill. Source of raw materials; timber cruising, felling, transportation of bucked lengths; hand-stacking; yard storage. Washing, trimming, splitting, and step by step manufacture of paper from wood pulp. How paper is water-marked. Calendering, changing rolls, rewinding, trimming; inspection; cutting to ream sizes. Processing of colored paper. How finished product is shipped.

1017. GIRLS IN WHITE√√(1948) — A VI 3 — RKO
16 min. *
Service rendered by nurses to humanity; their training and responsibilities; various kinds of nursing; need for more nurses.

1018. GIVE ME LIBERTY (1939) — A IX 1 — TFC-Warner
21 min.; color. *
Story of gathering in St. James Church, Richmond, Virginia, at which Patrick Henry delivered his most famous address. Instances of colonial government oppression which prompted the meeting.

1019. GIVING A SHOP DEMONSTRATION (1942) — A VI 3 — JamH
19 min.
Good teaching techniques for shop instructor; methods explained and demonstrated.

1020. GLACIER NATIONAL PARK (1936) — A IX 1 — FORD
9 min. **
Incidents of visit to Glacier National Park: glaciers, lakes, waterfalls; peaks of Great Divide.

1021. GLACIER PARK--CANADIAN ROCKIES (1948) — A IX 2 — PHP
22 min.; color.
Blackfeet Indians in Glacier Park. Waterton Lakes; Banff, Lake Louise; Columbia Icefield. Bear, moose, beaver, bighorn sheep and mountain goats.

1022. GLACIER PARK STUDIES (1948) — C V — S-M
22 min.; also color. *
History, geology and outstanding life forms of Glacier Park. Mountain structures, glaciers, lake formations, etc.; wild animals (moose, mountain sheep, bears, etc.); unusual flowers.

1023. GLAUCOMA--WHAT THE GENERAL PRACTITIONER SHOULD KNOW (1951) A II 1 m NSPB
22 min.; color. *
Statistical facts about glaucoma; its mechanism, early signs and symptoms which aid in diagnosis; rationale of treatment. Two cases presented, one acute, other chronic.

1024. GLAZE APPLICATION (1949) (Craftsmanship in Clay Series, No. 2) E X IND
10 min.; color. *
Skilled potter demonstrates four methods of glaze application: (1) dipping; (2) pouring; (3) brushing; (4) spraying. Specific techniques and good craftsmanship emphasized. Proper preparation of piece for glazing and precise finishing before firing, shown.

1025. GLEN WAKES UP (1950) A VIII
11 min. * YAF
Dramatic presentation of importance of being a "good citizen" (sharing responsibilities and privileges). Young boy begins to feel that everyone has turned against him; has strange visit one night with Mr. X; discovers that life holds more pleasure and more satisfaction when he shoulders his share of responsibilities in everyday life at home, in school, in community.

1026. GLIMPSE OF THE PAST, A (1951) A IX 1 IND
10 min. *
How prehistoric American Indians lived; structure of their homes, their food-gathering activities, their culture (especially Mounds Indians of southern Indiana). Excavations, exhibits, dioramas shown.

1027. GLOBAL CONCEPT IN MAPS (1947) C V CORONET
10 min.; also color. *
A boy's map-making investigation advances understanding of globe representations, projections, and distortions; importance of these concepts in rapid world transportation. Simple demonstration of great circle routes on a polar projection introduces cylindrical, conic, and perspective projections with summary of practical uses of each.

1028. GLOBULIN MODIFIED ANTI-TOXINS (1941) A II 1c ACC-LEDER
45 min.; color; silent. **
Reel I. Production and refinement of diphtheria antitoxin. Flocculation test used for roughly estimating potency of detoxified toxin or toxoid.
Reel II. Precautions against glanders and tetanus in horses used for immune serum production. Intraperitoneal injection of diphtheria toxoid, trial bleeding, testing potency of serum, bleeding a horse and later syphoning the plasma from blood cells. Refinement testing; processing of plasma. Refined and concentrated anti-toxin adjusted for content, sterilized by Berkefeld filtration, tested for sterility and potency.
Reel III. Containers of diphtheria antitoxin selected at random as required by National Institute of Health, checked for (1) potency, (2) safety, (3) sterility, and (4) identity of the product.

1029. GOAT FARM DAIRY, THE (1946) D I 2 FRITH
17 min.; color.
Detailed study of work on modern stock farm; responsibility of each member of American family living on farm. Care and raising of goats. Importance of goat's milk; various types of goat dairies (including one of largest in western U. S. A.).

1030. GOLDEN HARVEST (1940) D I 3
10 min. ** IntHar
California citrus fruit industry; summary of kind and extent of work needed before fruit ripens on tree.

1031. GOOD EATING HABITS (1951) A III 3
10 min.; also color. * CORONET
Youngsters learn importance of good eating habits; results of improper eating habits.

1032. GOOD EGG, THE (1950) D I 2
15 min.; color. * KanSt
Egg production and distribution, from hen to consumer; factors contributing to high quality eggs; egg grading and utilization.

1033. GOOD SPORTSMANSHIP (1950) A VI 4
10 min.; also color. * CORONET
Basketball game between older primary school boys illustrates fundamentals of good sportsmanship: playing fair, playing for the team, taking results well.

1034. GOOD TABLE MANNERS (1951) A VI 4
10 min.; also color. * CORONET
Youngsters learn that table manners are matters of courtesy, consideration, common sense.

1035. GOOD VALVE JOB PAYS, A (1950) A VI 1 ETHYL
23 min. **
What constitutes good valve job (internal combustion engine). Correct procedure to follow, tools to use; measurement, testing; function of valve rotator; precautions to observe during engine assembly.

1036. GOODBYE, MR. GERM (1940) A II 1d NatTbA
14 min.; also 35 mm.
Animated cartoons. How tubercle bacilli are spread, invade human lungs; how tuberculosis of lungs develops; how rest and treatment can effect cure.

1037. GRAIN THAT BUILT A HEMISPHERE (1943) — D I 1 — STATE
10 min.; color.
Animated cartoon traces origin of corn, its uses throughout Western Hemisphere, and man's dependence upon it.

1038. GRANDMA MOSES (1950) — E VIII — BF
22 min.; color. *
Grandma Moses, primitive painter: artist and woman. Simple, busy life on farm in upper New York State; albums of family photographs sharpen memories of things past. Grandma Moses' peculiarly personal technique of painting, sitting perched on family Bible. Special preparation of painting boards that gives her work its subtle luminosity. Many canvases shown.

1039. GRASPING (1949) — A II 4 c — SPITZ
(Studies-Problems in Infancy)
20 min.; silent. *
Experimental study of development of grasping pattern; grasping as sequence in which motor skills interact progressively with psychological development; contrast with clutching reflex.

1040. GRASS DOWN FIELD WATERWAYS (1949) — D I 1 — UofNeb
10 min.; color. *
How to fill bad gully, and repair fill for seeding; same waterway year later after grass has been established; how terraces are used with grassed waterways.

1041. GRASS IS GOLD (1948) — D I 2 — USIndS
20 min.; color.
Joe Whitecloud, Shoshone Indian in Wyoming, becomes successful cattleman. His progress from too ambitious start through near-failure to prosperity. How Joe learns that grass is gold to cowman; how Indian Service Extension Agent and Range Manager help him become careful husbandman of his rangeland.

1042. GRASSLANDS FARMING (1951) — D I 2 — MTFF
13 min. *
How beef-cattle farmer (in western New Jersey), with aid of science and mechanical equipment, has developed marginal land, grown fodder, processed it for storage, and set up self-feeding silo. Reduced operating expenses and higher prices for quality beef cover cost of equipment and fertilizer.

1043. GRAVITY (1950) — C VIII — CORONET
10 min.; also color. *
Elementary principles of gravity; attraction in relation to mass and distance; effect of gravity on solar system.

1044. GRAY SQUIRREL√W (1938) — C II — EBF
11 min. *
Growth and daily activities of three young squirrels from spring to midwinter. Mother feeds, cares for young; they learn to climb and hunt for food; and escape from red fox.

1045. GREAT HEART, THE (MGM Miniature Series) (1939) — A IX 2 — TFC-MGM
10 min. *
Dramatic episodes in Father Damien's work in leper colony at Molokai.

1046. GREAT MEDDLER, THE (Passing Parade Series) (1940) — A IX 2 — TFC-MGM
11 min. *
Dramatized story of work of Henry Bergh, founder of Society for Prevention of Cruelty to Animals.

1047. GREAT WINDS (DISTRIBUTION OF PRESSURE AND WINDS) (1951) — C V — UWF-GB
(Physical Geography Series)
10 min.; also color. *
Principles of circulation affecting distribution of pressure and winds; isobars and winds (over Africa and South America) diagrammed to show monthly changes in pressure, corresponding movements of wind belts. Movements of monsoon winds (southeastern Asia and northern Australia).

1048. GREAT WINDS (GENERAL CIRCULATION) (1951) — C V — UWF-GB
(Physical Geography Series)
10 min.; also color. *
Principal pressure areas on earth in relation to overhead noonday sun: equator, poles, sub-tropical regions, belts between poles and sub-tropics. How flow of air from high to low pressure areas establishes general circulation; deflection of winds, paths of trade winds and westerlies.

1049. GREATEST GOOD, THE (1950) — D I 5 — USDA
10 min.; also color. **
How principles of forest conservation came into being; how they influence management of National Forests. Gifford Pinchot National Forest, State of Washington.

1050. GREEN GOLD OF THE SALINAS VALLEY (1950) — D I 1 — TompkF
20 min.; color.
Step-by-step operations of preparing, planting, harvesting, packing and shipping lettuce, as practiced in Salinas Valley, State of California.

1051. GREEN HAY (1946) — D I 1 — GE
24 min.; color. **
How rain causes heavy loss of hay. How loss may be avoided by barn-curing. Method of barn-curing explained in detail. Advantages of barn-curing.

1052. GRIEF (1947) — A II 4 c — SPITZ
(Studies-Problems in Infancy)
30 min.; silent. *

Effect upon infants induced by prolonged absence of mother; importance of emotional climate provided by mother to normal mental and emotional development of child.

1053. GRINDING A DEEP HOLE √ (1944) (Machine Shop Work--Internal Grinder--78) 18 min. * — A VI 1 OE

How to grind backing pins and work-holding jaws of three-jaw chuck to hold workpiece; set length of stroke and break-through; correct for taper and bellmouth; check deep hole with an inside micrometer.

1054. GRINDING A PARALLEL BAR √ (1944) (Machine Shop Work--Surface Grinder--220, 221) 29 min. * — A VI 1 OE

Part I. How to mount grinding wheel; position diamond tool and true wheel; operate magnetic chuck; use controls of grinder; and grind face of chuck.
Part II. How to position parallel bar on chuck; rough-grind opposite sides of bar; rough-grind adjacent sides of bar at exact right angles; finish-grind all four sides.

1055. GRINDING A PLAIN PIN √ (1944) (The Grinding Wheel Machine Shop Work--Center-Type Grinder--80, 81) 34 min. * — A VI 1 OE

Part I. Cutting action of grinding wheel; how to select correct grinding wheel; handle and mount wheel on collet; and true and balance wheel.
Part II. How to lubricate and set up center-type grinder; mount and adjust workpiece for proper tension between centers; set table reversing dogs; and roughgrind plain pin.

1056. GRINDING A SLENDER SHAFT WITH BACK REST √ (1944) (Machine Shop Work--Center-Type Grinder--82) 17 min. * — A VI 1 OE

How to select and set up back rest; adjust back rest during grinding; rough and finish-grind long shaft; check and adjust taper.

1057. GRINDING A STRAIGHT HOLE √ (1944) (Machine Shop Work--Internal Grinder--77) 18 min. * — A VI 1 OE

How to use universal chuck; select proper grinding wheel, adjust wheel speed; set length of stroke; set cross-feed for automatic grinding; use precision cross-feed for finishing grinding.

1058. GRINDING A TAPER (1944) (Machine Shop Work--Center --Type Grinder--84) 19 min. * — A VI 1 OE

How to prepare arbor for grinding; mount and adjust arbor between centers; adjust swivel table and taper scale; rough and finish-grind taper; and check taper ring and light gages.

1059. GRINDING A TEMPLATE √ (1944) (Machine Shop Work--Surface Grinding--222) 15 min. * — A VI 1 OE

How to mount and true wheel; mount sine bar on table; set sine bar for specified angles; set up template on sine bar; rough--and finish--grind template; check workpiece for accuracy.

1060. GRINDING A V-BLOCK √ (1944) (Machine Shop Work--Surface Grinder--223) 22 min. * — A VI 1 OE

How to set up V block to grind ends and V; rough--and finish-grind ends; establish reference points for grinding V to precision dimensions; check the work for accuracy.

1061. GRINDING AND FACING A BLIND HOLE √ (1944) (Machine Shop Work--Internal Grinder--79) 17 min. * — A VI 1 OE

How to mount and dress wheels on two-spindle grinder; plunge-grind bore, adjust for taper; grind shoulder and flange parallel at right angles to bore.

1062. GRINDING CUTTER BITS--HOW TO RUN A LATHE √√ (1948) 20 min.; also color. ** — A VI 1 SOUTH

Modern engine lathe as basic tool in machine shop work; why quality of work depends on condition and use of correct cutter bit; how to grind cutter bits, how to set up and operate engine lathe.

1063. GRINDING MULTIPLE-POINT TOOLS √ (1944) (Machine Shop Work--Carbide Tools--243) 20 min. * — A VI 1 OE

How to off-hand grind individual teeth; circle grind; surface grind all tooth relief angles; finish surfaces and edges by honing; how to inspect resharpened cutters.

1064. GRINDING SINGLE-POINT TOOLS √ (1944) (Machine Shop Work--Carbide Tools--242) 26 min. * — A VI 1 OE

How to semi-finish and finish-grind a dull tool; rough-grind a chipped or broken tip; grind a newly brazed tool; and grind a chip breaker.

1065. GRINDING THIN DISCS √ (1944) (Machine Shop Work--Surface Grinder--224) 15 min. * — A VI 1 OE

How to true grinding wheel; load and operate magnetic chuck; rough-grind discs; finish-grind discs to precision measurements; check for accuracy and parallelism.

1066. GROUND WATER√√ (1935) 11 min. * — C VI EBF

Evidence, movement and work of ground water: wells, seepages, springs, geysers. Water table. Great Plains artesian system. Caverns; petrified trees, fossils, geode crystals, iron ore deposits as supporting evidence that ground water may deposit as well as carry away minerals.

1067. GROUSE OF THE GRASSLANDS (1950) 11 min.; color. * — C II EBF

Western Missouri booming grounds of prairie chicken; mating ceremonies.

1068. GROWING A FLOWER GARDEN FROM SEED (1950) 15 min.; color. ** — D I 3 NatGar

How to grow flowers from seed; starting seeds in greenhouse, outdoor flats, sowing directly in garden; transplanting from flat by several methods.

1069. GROWING YEARS, THE (1951) 20 min. * (3) — A I 5 e GScout

How teen-age girl makes friends and engages in worthwhile activities as Girl Scout. Importance of Girl Scout work to community; what it means to girls to belong to Girl Scouts.

1070. GROWTH: A STUDY OF JOHNNY AND JIMMY (1940) 43 min.; silent. * — A II 4c IntFB

Twin study of motor development in three reels. Influence of exercise on development of each motor function at each age level; comparative behavior during first two years, when twins were subjects of special investigation; and during following six years. Complex interdependence of practice and maturation in development.

1071. GROWTH OF A NATION, THE (1950) 31 min. * ** — D I 2 AmFEED

Dramatized story presenting history of development of manufactured feeds for livestock, poultry, etc.; how use of such feeds increases market values. Importance of good feeding practices; contributions of experiment station workers, feed-control officials, county agents, agricultural teachers and the feed industry to increased production and so to food supply of nation.

1072. GROWTH OF BACTERIA, YEASTS, AND MOLDS, THE (1933) 21 min.; silent. * — A II 1c SAB

Reel I: Micropictures of microorganisms growing on surface of culture medium illustrating thesis that bacteria multiply by coccoid division and by branching as well as by fission. 1. Bacillus magatherium. Low magnification of entire colony; higher magnification illustrates chains and individual cells. Rough colonies illustrated. 2. Fission demonstrated; formation of smooth colonies illustrated. Coccoid division and branching demonstrated. Reel II: Phenomena of bacterial growth and multiplication in larger yeasts and molds. A mucor, Rhizopus nigricans, shown at low magnification, developing sporangia, germination of several spores shown; multiplication by budding, by fission, by branching. Giant yeast cells from a Kefir granule; pigmentation of giant cell; subsequent growth of pigmented cell. Speed of development of septa, of sporangia (in Rhizopus) and of pigmentation. (Dr. Ralph W. G. Wykoff).

1073. GROWTH OF CAPILLARIES AND ENDOTHELIUM (1931-36) 6 min.; silent. * — C II WISTAR

From the sub-cutaneous tissue of 7-day chick embryos in 2-day cultures in Locke-bouillon-dextrose medium. Migration from explants of blood-vascular endothelium and capillaries which anstomose to form networks. Occasional freeing of endothelial cells and capillary segments at the periphery.

1074. GROWTH OF FLOWERS, THE (1945) 10 min.; color. * — C III CORONET

Time lapse photography shows drama and beauty of floral growth. Rose, orchid, jack-in-the-pulpit, daffodil, iris sprout, grow, bud, bloom and die in accelerated life history presented.

1075. GROWTH OF INFANT BEHAVIOR: EARLY STAGES (1934) 11 min. * — A II 4c EBF

Rapid growth of early infant behavior patterns; typical infant reactions at various ages contrasted by simultaneous pictures.

1076. GROWTH OF INFANT BEHAVIOR: LATER STAGES (1934) 10 min. * — A II 4c EBF

Increasing ability of growing infant to use hands in manipulating objects.

1077. GUARD YOUR HEART (1951) 27 min. (short version, 20 min.); also 35 mm. * — C II BRAY

Power and endurance of human heart; how it performs task of circulating blood.

Arteriosclerosis; coronary thrombosis explained. How to live with heart, instead of fighting it.

1078. GUARDIANS OF OUR COUNTRY'S HEALTH (1950) A VIII FRITH
17 min.; color.
How United States Public Health Service prevents sickness and disease from entering the United States. Quarantine doctors and inspectors examine persons entering country at airfields, harbors and border stations. Different health problems encountered in persons from Asia, Europe and South America. Health requirements for entering country as travellers or to remain permanently. Chest X-ray, blood tests. Modern equipment; radio communication with ships at sea, with medical launch. Care of patients at sea, in harbor. Plague ports, plague diseases. Prevention of epidemics.

1079. GUARDIANS OF PRECISION (1948) A VI 1 GRUEN
27 min.; color. **
Step by step demonstration of proper method of disassembling, cleaning and reassembling a fine watch. Inspection; checking.

1080. GUIDANCE PROBLEM FOR SCHOOL AND HOME, A (1941) A II 4 c TCCU
20 min. *
Demonstrating that an understanding of child behaviour by both parents and teachers is essential if child is to be helped to normal growth; a teacher's approach to individual parent-teacher conferences, portrayed.

1081. GUIDED BEND TEST, THE √ (1944) A VI 1 OE
(Machine Shop Work--Welding --189)
17 min. *
How to prepare groove weld and fillet weld test specimens for guided bend test; how to make test; causes of failure in bending.

1082. GULF OF MEXICO INVERTEBRATES C II IO-R
30 min.; color; silent. *
Reel I: Sponges, coelenterates, mollusks, echinoderms, and arthropods.
Reel II: Stone, ghost, calico, spider, hermit, swimming, fiddler crabs; squids.

1083. GYMNASTICS (1935) A II 6
(Sports Parade Series) TFC-MGM
9 min. *
Champions of the Amateur Athletic Union perform various exercises with gymnasium apparatus: flying rings, long horse, horizontal bar. Chinning, tumbling. Slow motion used.

H

1084. HABITS AND CHARACTERISTICS OF THE NORWAY RAT (M37b) (1951) D I 4 CDC
(Rodent Control Series)
28 min. **
Habits, characteristics, and abilities of Norway rat which enable it to live as parasite of man, and which, in turn, enable man to control it.

1085. HABITS AND CHARACTERISTICS OF THE ROOF RAT (M37c) (1951) D I 4 CDC
(Rodent Control Series)
14 min. **
Habits, characteristics, and abilities of roof rat which enable it to live as parasite of man, and enable man to control it; comparison with Norway rat.

1086. HALF A CHANCE (ORTHODPEDIC REHABILITATION OF AMPUTEE) (MF 1254) (1946) A II 1 r USArmy-UWF
11 min. **
How one amputee, through use of artificial leg, was able to participate in various sports, including professional baseball.

1087. HALOGENS, THE (1947) C IV CORONET
10 min.; also color. *
Physical and chemical properties of fluorine, chlorine, bromine, iodine, free and in compound. Slow-motion photography facilitates study of reactions.

1088. HAND DITCHING FOR MALARIA CONTROL (4-047) (1949) A II 3 a CDC
6 min.; also color. **
Hand ditching for malaria control appropriate in certain situations. Principles of hand ditch construction; surveying by engineers to locate ditch lines and establish grades; hand excavation; spreading of excavated soil along banks; and lateral ditching to drain smaller areas into main ditch. Land reclaimed by drainage becomes available for development, offsetting cost of drainage project.

1089. HAND HELD DRILLS (1951) A VI 1
18 min.; color. ** GAR-D
Operation and applications of five sizes of hand held sinker rock drills (light weight utility drill to 73 pound sinker).

1090. HAND SAWING (1943) A VI 1
19 min. JamH
Outline history of the manufacture of saws. Difference between rip saws and cross cuts pictured and explained; their uses. Set-up of board to be sawed, positions of hands and body, and movements of sawing, described for

various types of work. Definition and use of coping saw. Various strokes used in different cuts and with different saws; straight line cut and curved cut. Hack saw described; adjustment of blade; methods of using including cutting metals. Importance of choosing right blade.

1091. HAND SOLDERING (1944) A VI 1
(Machine Shop Work--Soldering--479) OE
20 min. *
Theory of soldering; how to prepare soldering irons and torches; clean and prepare work; fasten joints; solder wire and lug joints; how to seal seams.

1092. HAND TO MOUTH√√ A II 3 a
(1940) DyReg
30 min.; monochrome; silent.
Dangers of infection as carried from hand to mouth; chief sources of contamination; preventive measures. Boys swimming in sewage contaminated waters; proximity of privy to well; flies on produce in open markets and shops; improper handling of food in store and kitchen. Effects of contamination: dysentery (patient, laboratory method of diagnosis, treatment, with particular emphasis on isolation and disinfection). Preventive measures: hand-washing before preparing food, after using toilet, before eating; proper sewage disposal; slum clearance; sanitary markets; pure water supply.

1093. HANDICAPPED GO CAMPING, THE (1950) A II 6
StaCWa
9 min.; color. *
Activities and underlying philosophy of experimental summer camp for handicapped children; how handicapped live, work, play, in democratic society with normal children.

1094. HANDLE WITH CARE (1948) A II 5
13 min.; color. ** AETNA
Correct techniques in first aid in cases of fracture, wounds, burns, scalds, bleeding and shock. How to improvise and apply splints, tourniquets, use stretchers and other first aid materials and equipment.

1095. HANDLING LIVESTOCK FOR MARKET (1944) D I 2
(Farm Work--Livestock 459) OE
21 min. *
Causes of losses in marketing livestock; how to prevent injuries to livestock on farm, before shipment, when loading, and during shipment.

1096. HANDLING MATERIALS IN THE STEEL INDUSTRY (1949) A VII
LinkB
27 min.; color.
Use of conveyor systems in mining of iron ore, coal, limestone; in handling sheet coils in hot-strip mill (hydraulic transfer, lift, turn transfer, side discharge tilter). Use of out-board-roller chain conveyor demonstrated in detail. Booster drives. Fluid-drive true-track car system. Conveyor systems in cold reduction and temper-pass mills. Mobility and adaptability of conveyor systems with booster drives, stressed.

1097. HANDWROUGHT SILVER (1948) E X
H&H
23 min.; color.
How to raise a bowl from flat sheet of sterling silver. Step by step demonstration from preliminary selection of materials and tools to soldering on of base and final polishing. Action of silver under hammer shown; flow of solder; heat colors in metal. Basic silversmithing process illustrated, applicable to many types of raised objects.

1098. HARBOR PILOT (1948) A IX 1
10 min. * Bailey
Work of harbor pilot in bringing a giant liner safely into port; simple story with many close-ups. Slow tempo.

1099. HARDNESS TESTING (Rockwell) (1944) A VI 1
(Aircraft Work--Inspection--149) OE
18 min. *
Need for hardness testing; how to set up Rockwell Hardness Tester; select and seat penetrator; select and mount anvil; test accuracy and adjust timing of machine; and test flat and curved surfaces.

1100. HARE AND THE TORTOISE√√ A IV 2
(1947) EBF
11 min. *
Aesop's fable of hare and tortoise; real animals play roles.

1101. HARMONY IN FLORIDA A IX 1
(1944) UnitSp
13 min.; color.
Craftwork in scale and seashell industry in Florida; how immigrant workers have been incorporated into the industry.

1102. HARNESSING THE RAINBOW A VII
(1946) DUPONT
29 min.; color.
Color fastness in yarns and fabrics explained; how laboratory tests are used to determine fastness of dye. Vat dyes and their applications.

1103. HARVESTING SEEDS OF PLENTY (1951) D I 1
Case
10 min.; color. **
Importance of new grassland farming; production of seeds from legume and grass crops. Leading crops at various stages of growth, including rice. Threshing with modern combines.

1104. HARVESTS FOR TOMORROW (1940) D I 1
USDA
27 min.; also 35 mm. *

Story of farming and particularly of soil conservation in New England.

1105. HAWAIIAN NATIVE LIFE (1940) A IX 1 EBF
11 min. *
Hawaiian islands, location and physical features; wide variety of immigrant and native workers in pineapple and sugar cane industries; homelife, customs, activities of native Hawaiians.

1106. HEALTH AND THE CYCLE OF WATER (1941) A II 3 CIPRA
20 min. **
Water purification, a municipal problem; responsibility of municipalities not to pollute streams. Working of water purification plant illustrated diagrammatically; screening, additions of chemicals for flocculation, sedimentation basins, filtering beds, washing of the filters, storage, and chlorination. Increase in number of water purification plants parallels decrease in number of cases of typhoid fever. Purification of sewage described in detail. Summary of various processes of purifying water in its cycle from rain to rain. Use of cast iron pipe illustrated throughout film.

1107. HEALTH EDUCATION AGAINST MALARIA (4-010) √ (1947) A II 3 CDC
6 min. **
How health education against malaria may be disseminated locally. Need for such programs. Preventive points emphasized: screening windows, patching holes in existing screens, placing netting over baby's crib, sealing floor cracks, spraying or dusting mosquito breeding places.

1108. HEALTH IS A VICTORY (Revised 1947) A II 1 d AmSH
11 min.; also 35 mm. *
Story of campaign (in U. S. A.) against gonococcus infections. New treatments mentioned.

1109. HEALTHY LUNGS (1951) C II CORONET
10 min.; also color. *
General breathing mechanism and action; relationship between respiratory and circulatory systems.

1110. HEAR BETTER: HEALTHY EARS (1950) C II CORONET
10 min.; also color. *
General information on structure and function of the human ear; care of ears.

1111. HEART AND CIRCULATION √ √ (1937) C II EBF
(The Human Body, Series 1)
11 min. *
How heart and blood vessels circulate blood through body: circulatory system and muscle and valvular action shown. Rate of heart beat. Cinemicrography shows capillary blood flow.

1112. HEART-LUNG PREPARATION (PMF 5170) (1950) A II 1a USArmy-P
17 min.; color. **
Method of making heart-lung preparation used in studying cardiac physiology.

1113. HEAT TREATING HINTS (1942; 1944) A VI 1 LindEng
45, 41 min.; color. **
First Edition: Problems of heat treating; techniques. Practical suggestions and explanation of underlying principles. Right and wrong ways to use tools and equipment. Heating and quenching. How to handle different types of steel.
Second Edition: Further tips on heat-treating, hardening, quenching, straightening.

1114. HEAT TREATMENT OF ALUMINUM √ (1945) (Engineering--Metallurgy--344, 345) C VIII OE
43 min. *
Part I. Purpose of heat treatment; microstructure changes during heat treatment; heat treatment procedure; aging or precipitation hardening; effects of heat treatment on physical properties of aluminum.
Part II. Nature of cold working operations; microstructure changes during cold working; microstructure changes during annealing; cold working and annealing operations.

1115. HEAT TREATMENT OF STEEL--ELEMENTS OF HARDENING √ (1945) (Engineering--Metallurgy--170) C VIII OE
15 min. *
How steel is quench-hardened; how structures and hardness of steels with different carbon content change at progressive quench-hardening stages; how an iron-carbon diagram is constructed and what it shows.

1116. HEAT TREATMENT OF STEEL--ELEMENTS OF SURFACE HARDENING (1945) (Engineering--Metallurgy--172) C VIII OE
14 min. *
How steel is pack carburized and gas carburized; how a thin, hard case is obtained by cyaniding; how nitriding is used to obtain a very hard case; how steel is flame and induction hardened.

1117. HEAT TREATMENT OF STEEL--ELEMENTS OF TEMPERING, NORMALIZING, AND ANNEALING √ (1944) (Engineering--Metallurgy--171) C VIII OE
22 min. *
How steel is tempered; how structure, toughness, and hardness of a plain carbon steel change at progressive tempering stages; how steel is normalized; how steel is annealed; how annealing relieves stresses in steel and softens it.

1118. HEATING AND AIR CONDITIONING (1945) — A VI 5 MAHNKE
11 min. *
Restaurants, hospitals, factories, etc., where air conditioning is used; equipment under construction; installed and serviced. Heating equipment shown; principles explained. Job range outlined; educational requirements indicated.

1119. HEAVY MEDIA COAL CLEANING PROCESS, THE (1949) — A VII LinkB
15 min.; color.
Equipment and methods used in heavy media process of cleaning coal. Importance of coal; growing problems of cleaning coal, listed and explained. Operation of float-sink concentrator demonstrated. Superiority of clean coal for commercial, domestic use and use in metallurgy.

1120. HEIGHT GAGES AND TEST INDICATORS (1941) — A VI 1 OE
(Machine Shop Work--Precision Measurement--5)
12 min. *
Fundamental principles of vernier height gage and its use.

1121. HEIGHTS AND DEPTHS (1938) — E V JamH
9 min.
How engravings of various kinds are made: as reproductions from wood-cuts, as zinc etchings of line drawings. Making of halftone photograph reproductions for both flat bed press and cylinder or rotary press, used by modern newspapers. Rotogravure.

1122. HELLO BUSINESS! (1947) — A VI 1 DICTAP
19 min.; color. **
How telephone recording may assist business and professional men by providing means to record messages, memoranda, etc., correctly and opportunely. A physician playing golf nevertheless receives an emergency message in correct technical detail by telephone recording.

1123. HELP WANTED (1942) — A II 5 J&J
31 min. **
Basic principles of first aid; general procedures in caring for victims before doctor arrives: circulatory system, how to stop bleeding from cut veins and arteries; first treatment of shock; proper method of applying and handling various types of bandages; treatment of burns; artificial respiration; treatment of fractures; transportation of injured.

1124. HELPING THE CHILD TO ACCEPT THE DO'S (1948) — A II 4 c EBF
(Personality Development Series)
11 min. *
How child's personality is affected by extent to which he accepts the Do's for personal living; the masculine and feminine Do's; the Do's for human relations.

1125. HELPING THE CHILD TO FACE THE DON'TS (1948) — A II 4 c EBF
(Personality Development Series)
11 min. *
How young child reacts to Don'ts: how he conforms in his own way. The Don'ts which protect a child from danger; which restrain him from trespass; which teach him to respect rights of others.

1126. HEN MAKES AN EGG FOR THE TABLE, A (1939) — D I 2 RALST
37 min.; color; silent.
Importance of balanced rations and suitable living quarters for hens; emphasis on reproductive system; healthy and diseased chickens and embryos compared.

1127. HENRY MOORE (1949) — E X AF
15 min.; color. *
Documentary film on Henry Moore's work based on exhibition at New York's Museum of Modern Art. Distortions of human figure in Moore's sculpture ascribed to his emotional knowledge of human nobility. Moore's "truth to material," respect for different qualities of wood, stone and cast metal, never falsifies to imitate human flesh. Influence of primitive sculpture.

1128. HENRY WADSWORTH LONGFELLOW (1949) — A IX 1 EBF
17 min. *
Biography of Longfellow, teacher, scholar, poet. Selections from poems; incidents which inspired some of his best known works.

1129. HEREDITARY ATAXIA (PMF 5140) (1947) — A II 1 a USArmy-P
33 min.; color. **
Hereditary and clinical characteristics of ataxia group of neurological disorders. Earliest and most common complaint; later disease development; signs of late stages. Diagnosis.

1130. HEREDITY √ ✓ (1938) — C II EBF
11 min. *
Transmission of hereditary factors explained; processes of mitosis, meiosis. Character dominance illustrated.

1131. HEREDITY AND ENVIRONMENT (1951) — C II CORONET
10 min.; also color. *
Rural setting used to illustrate, in both human and animal families, elementary principles of heredity and environment. How offspring tend to resemble parents, vary according to known patterns, tend toward average. How plants and animals are influenced by environment; how people modify or select environment.

1132. HEREDITY AND PRE-NATAL DEVELOPMENT√(1950) — A II 4c McG-H
(Child Development Series)
21 min.

Growth, subdivision, eventual union of male and female sex cells. Chromosomes and genes explained; how they transmit physical and mental characteristics to offspring. Modification of traits by training and environment. Fertilization of ovum by sperm cell at conception; development of fetus until delivery. Physiological actions of breathing (in newborn); eating, elimination. Close connection between physical and emotional sensitivity in very young children.

1133. HERNIATION OF INTERVERTEBRAL DISK (1946) — A II 1q BURKE
11 min.; color; silent.*
History of radicular pain, flexor spasms of lower extremities, periodic urinary retention; bilateral Babinski signs, dermatomal hypalgesia. X-ray shows large filling defect, suggesting cervical spinal neoplasm. Exposure by linear incision. Nucleus pulposus extrudes itself under pressure; removal completed with curette.

1134. HIGH FREQUENCY SOLDERING √ (1944) — A VI 1 OE
(Machine Shop Work - Soldering - 480)
17 min.*
Theory of high-frequency heating; how to select a work coil and leads; tune a converter; determine and adjust correct soldering time and temperature; and use an automatic timer.

1135. HIGH JUMP, THE (1945) — A V 2 CORONET
(Track and Field Series, II)
10 min.
The scissors jump; the western roll; side roll and belly roll, demonstrated in regular; slow, and stop-motion photography. The high hurdles, importance of body rhythm.

1136. HIGH JUMP, THE (1947) — A V 2 UWF
10 min.*
Demonstration of belly roll or straddle; improved western style; body lean and reverse; proper approach; importance of body tension; co-ordination of arm and leg action.

1137. HIGH SCHOOL: YOUR CHALLENGE (1952) — A I 1 CORONET
13 min.; also color.*
Importance and advantages of good high school education emphasized as graduating student looks back over high school years.

1138. HIGH SPEED MOTION PICTURES OF THE HUMAN VOCAL CORDS (1940) — A II 1n BELL
31 min.; silent.**
Photography used in research into human speech and hearing. High speed continuous camera; film optical compensation. Illustrations. Larynx and vocal cords; position and action, photographed at various camera speeds. Varying conditions of phonation. Analysis of configuration and vibration of vocal cords as pitch and volume are altered. Trained and untrained voices. Change of vocal resonances. Whispering, phonation with inhalation; cough.

1139. HIGH SPEED MOTION PICTURES TAKEN WITH STROBOSCOPIC LIGHT (1934) — B VI 2 MIT
12 min.; silent.*
Construction of high speed camera explained and illustrated by flow of air through an electric fan; bursting of a soap bubble; canary dropped from hand; "take off" of homing pigeon; golf ball splashing into pail of water; hammer striking electric light bulb; flight of house fly; mosquito in flight; action of snake's tongue; kicking football; rubber ball bouncing off floor; splashing of milk drops. Reason why cat always lands on its feet.

1140. HIGH TEMPERATURE SHORT TIME PASTEURIZATION (M10a) (1951) — A II 3 a CDC
21 min.**
Procedures for testing functioning and accuracy of high temperature short time pasteurization controls in accordance with standard milk ordinance regulations.

1141. HIGH YIELD HARVESTING (1946) — A IX 1 Case
10 min.; color.**
Variety of crops produced in the United States which are harvested by modern combine to obtain maximum seed yields.

1142. HIGHWAY SOIL ENGINEERING (1949) — D II COM-PR
10 min; color. **
Methods of conducting soil tests for stabilization of highways, subgrades and bases.

1143. HIGHWAYS AHEAD (1947) — A IX 1 CateT
29 min.; color.**
Evolution of United States highway system; contrasts old and new highways.

1144. HINTS ON ELECTRICAL SERVICING IN THE AIR-CONDITIONING INDUSTRY (1951) — A VI 1 WestH
20 min.; color.**
What may go wrong in air-conditioning unit (motors of various types). How to check and test to discover trouble; how to correct failure. How to service unit.

1145. HISTORIC NEW ENGLAND (1946) — A IX 1 S-M
22 min.; also color.*
Historic, economic, geographic importance of the six New England (U. S. A.) states; their contribution to the United States and to the world.

1146. HITTING IN BASEBALL (1947) — A V 2 EBF
11 min.*
Three accepted methods for gripping bat; proper batting stance; correct swing. Slow-, stop-motion and close-up photography used to clarify techniques demonstrated and explained.

1147. HOBBING A HELICAL GEAR, TWO CUTS - NONDIFFERENTIAL METHOD √ (1944) A VI 1 OE
(Machine Shop Work - Gear Hobber - 235)
17 min.*
How to set up change gears; adjust swivel head to cut on helix angle; set up machine for rough cut; realign hob and gear teeth after disturbing lead.

1148. HOBBING A SPUR GEAR √ (1944) A VI 1 OE
(Machine Shop Work - Gear Hobber - 231, 232)
34 min.*
Part I - Factors governing selection of hob; how to select change-gear combinations for speed, feed, and index; identify correct gears; mount change gears; adjust for backlash; how changegear trains are interrelated.
Part II - How to select and mount hob; set swivel head angle; choose and mount fixture; lead gear blanks; set up for depth of trial cut; adjust for full depth of cut.

1149. HOBBING A SQUARE TOOTH SPLINE SHAFT √ (1944) A VI 1 OE
(Machine Shop Work - Gear Hobber - 233)
17 min.*
How to change hob arbors; centralize hob with centering gage; mount center-type fixture and top adjustable center; use driving dog in mounting spline shaft blank; set up for trial cut; and take full depth of cut.

1150. HOBBING A WORM GEAR - INFEED METHOD √ (1944) A VI 1 OE
(Machine Shop Work - Gear Hobber - 234)
18 min.*
Angle at which to set swivel head; how to calculate and adjust height of hob arbor; engage horizontal feed; centralize hob; and cut to center distance.

1151. HOLSTEIN HERITAGE (1949) D I 2 H-FA
31 min.; color.**
Background and history of Holstein-Friesian breed of dairy cattle; development in United States. Review of record-keeping activities essential to breeding of better dairy animals. How young people work with dairy cattle. Instruction in production of roughages; feeding schedules and practices; corn, silage, hay, legumes, trefoil, pasture mixtures, etc. How proper breeding and care produce quality.

1152. HOME CARE IN ORAL PROPHYLAXIS √ √ (1949) A II 2 ScieFC
21 min.; color; also silent.*
How to take care of mouth and teeth; how to brush teeth; use of mechanical stimulators; choice of dentifrices and mouth preparations; diet.

1153. HOME COOKERY OF FISH (1946) A III 3 EBF
11 min.*
Broiling, boiling, baking fish: cod, halibut, whitefish; use of garnishes.

1154. HOME ECONOMICS STORY, THE (1951) A VI 5 I0 S C
28 min.; color.*
Home economics as a career for women: what college home economics courses are intended to teach; to what careers they lead graduate students as well as improved home making.

1155. HOME ELECTRICAL APPLIANCES √ (1944) C VIII EBF
11 min.*
Basic principles underlying operation and maintenance of electrical home appliances. Wiring circuit of average home. Principles of heating, lighting and power appliances explained in operation of electric iron, incandescent and fluorescent bulbs, vacuum cleaner motor. Working principles of electric refrigerator.

1156. HOME NURSING √ √ (1941) A II 11 EBF
11 min.*
Proper procedures in care of sick at home: how to arrange bed, bathe and move patient in bed. Importance of patient's general comfort. Techniques of taking temperature, pulse, respiration rates, giving medication, feeding convalescent.

1157. HOME NURSING IN PNEUMONIA (1941) A II 1 1 NYH
9 min.**
How a public health nurse instructs housewife in care of pneumonia patient; feeding patient, back rub, bedpan, turning patient in bed, changing linen, etc.

1158. HOME SAFE HOME (1944) A II 7a NSC
12 min.*
Causes of home accidents; how every member of family can help eliminate hazards and avert tragedy.

1159. HOMEMAKER IMPROVES HER METHOD OF IRONING, A (1946) A III 2 NYSExt
17 min.; silent.*

Homemaker learns to improve and simplify method of ironing shirt by using wider ironing board, not turning shirt, ironing with both right and left hands.

1160. HONEY BEE √ √ (1940) C II EBF
11 min.*
Life cycle and habits of honeybee (close-up photography); contrasting functions of queen, workers, drones. Nectar, pollen, manufacture of honey; cross-pollination of flowers. Swarming; building a new comb.

1161. HONEYMAKERS, THE (1951) C II UMINN
20 min.; color.
Bees among flowers; pollination. Captured bee forced to sting. Opening of a bee hive in winter; activity of the bees during winter. Bees gathering pollen and nectar in spring; value of bees for honey, wax, and pollination. Bees feeding on a pollen substitute. Close-up of bees at work within hive. Kinds of bees within hive; duties of each. Queen bee laying eggs; stages of growth of larvae; care of larvae. Methods of commun-

ication between bees. Bees swarming; reasons for swarming. Care of queen bee larvae. How honey is extracted from cells; uses of honey and wax.

1162. HOOK, LINE AND SAFETY (1946) A II 7e
17 min.; color.** AETNA
An experienced angler, by his example, shows a novice how to observe common sense safety rules on a fishing trip.

1163. HOOKWORM √√ (1946) A II 1 r
11 min.; color. I.I-A.A.
How hookworms enter and affect the human body; remedy indicated.

1164. HOPI ARTS AND CRAFTS (1945) A V 1
10 min.; also color.* CORONET
Distinctive handicraft of Hopi Indians weaving, silversmithing, basket making, and pottery making shown in detail; skill and patience required in native arts.

1165. HOPI INDIAN (1943) A IX 1
10 min.; also color.* CORONET
Land of the Hopi in Arizona's Grand Canyon: his way of life, his crops; food; secret marriage ceremony. Representative Indian pursues his work and performs his tribal ceremonies against background of his home.

1166. HORACE MANN (1951) A IX 1
19 min.* EBF
Biography of Mann, American educator who is called the "Father of the Common Schools."

1167. HORIZONS UNLIMITED (1948) A IX 1
17 min.; also 35 mm.** NHUC
How modern highways and motor vehicles (passenger cars, trucks and buses) have affected daily life and the whole economy of United States. Highway transportation illustrated.

1168. HORSE, THE √ (1941) C II
11 min.* EBF
Roles of horse in modern life. Development and training of colt: prize saddle pony at three years of age. Stages of colt's growth: early life with mother, weaning, first shoeing, training for stance, breaking to saddle, learning gaits, performing at horse show.

1169. HORSE GAITS (1948) D I 2
15 min. Wayne D
Differences in gaits of horses; Tennessee walking horses, standard bred pacers and trotters; American saddle horses at the stepping pace and rack; jumpers over fences; and race horses at full run. Seven gaits identified and classified.

1170. HORSE RAISING (1942) D I 2
11 min.; color. FRITH
Stock farm which raises pure-bred horses; work of specialists in care of valuable animals. Kinds of horses preferred for special work; different breeds. Problems of breeding fine stock. Points of fine horse brought out. Horses put through their paces in ring. Proper handling and training stressed. The veterinarian. Importance of correct bits, bridles, and harness. How to saddle horse properly. Preparation of eight-horse wagon hitch for county fair: grooming, braiding, decorating, harnessing.

1171. HORSEPOWER (1937) A VI 1
9 min. JamH
Meaning of term "horsepower;" how it originated; how it applies to automobile. How horsepower unit was used by James Watt in 1769; how horsepower of automobile engines has been increased.

1172. HORSES AND BOTS (1933) A II 1 s
25 min.; silent; also 35 mm.** USDA
Three types of bot flies; how they attack horses and mules and render them useless for work; methods of treatment; how eradication campaigns are carried out.

1173. HORSES CAN TAKE IT (1946) D I 2
30 min.; color.* GATE
Horses of all breeds, ridden by men, women, children, compete in a trial for stamina and trail "manners" over the 80-mile Merced-to-Mariposa trail (in California).

1174. HORSESHOEING (1944) D I 2
(Farm Work--Livestock--458) OE
19 min.*
How to handle a horse during shoeing; how to prepare the feet; how to select, fit, and nail on shoes; how to take off shoes; and how to tighten old shoes on a horse.

1175. HORSESHOES (1938) A V 2
(Grantland Rice Sport-light) TFC-Paramount
9 min.*
Ted Allen demonstrates some unusual timing and pitching as well as some remarkable trick shots in horseshoe pitching.

1176. HOSE EVOLUTIONS AND HOSE LINE EQUIPMENT (1948) A VI 3
30 min.* AUSTIN
Approved fire-fighting equipment and correct handling of it. Precision workmanship used in manufacture of hose line equipment; why every fireman should know tools of his trade. Types of hoses, ski lug couplings, hydrant adapters, types of nozzles, connecting units, hose jackets, hose clamps. How hoses and equipment should be handled, demonstrated by Ohio fire departments. Ways of packing or loading a fire truck bed. How to catch a hydrant, lay a hose, carry a hose. Use of pumper and hard and soft suction hoses explained. How to pick up and dry hose after use.

1177. HOSPITAL FOOD SERVICE A II 1 1
PERSONNEL TRAINING USArmy-UWF
(TF 8-1575-8) (1950)
17, 13, 12, 15 min.** P

Part I: Introduction. Various phases in operation of hospital diet kitchen. Menu planning, cleanliness, timing of food preparation. Importance of good food as patient morale booster.
Part II: The Individual. Rules concerning personal cleanliness and sanitary work habits to be observed by members of Hospital Food Service Department to prevent spread of germs.
Part III: Equipment. Vigilance of cleanliness; rules for cleaning equipment: (1) loosening dirt, (2) dissolving or emulsifying dirt, (3) rinsing (4) drying.
Part IV: Serving Food. Importance of serving food in appetizing manner (color).

1178. HOSPITAL SANITATION (TF 8-1708) (1951) — A II 1 1 — USArmy-P
14 min.**
Methods of maintaining hospital sanitation with aid of doctors, nurses, technicians, ward attendants, cooks and cleaning personnel.

1179. HOT HEAD, THE (1939) — A VI 1 — JamH
15 min.
Problems of efficient fuel combustion in automobile. Results of complete and incomplete burning of carbon; how engine design influences combustion efficiency; how efficient burning of gasoline is produced by "breaking". Four-stroke cycle principle of internal combustion engine explained; how valve-in-head engine design produces greater combustion efficiency, reduces power waste. How fuel mixture flows into combustion; how removal of gases is effected; how fuel mixture can be controlled.

1180. HOT WATER HELPS (1947) — A III 1 — PGC
15 min. Sound.
Use and value of hot water in household. Normal use in home shown.

1181. HOUSE I LIVE IN, THE (1945) — B VIII — YAF
10 min.*
Frank Sinatra talks (and sings) to a group of boys, pleading for racial and religious tolerance. RKO Academy Award.

1182. HOUSE OF MERCY√√(1950) — A II 1 1 — RKO
18 min.*
Services his community hospital renders citizen in case of illness or accident; how modern hospital is equipped and operated.

1183. HOUSE-FLY√√(1936) — A II 3 b — EBF
11 min.*
Housefly, menace to health; habits and life history. Biological structure in magnified views; methods of carrying and spreading disease germs. Practical control methods.

1184. HOUSE FLY, THE (1933) — C II — EBF
15 min.; silent.*
Life history of house fly: eggs (shown in high magnification); larvae (maggots); change into pupa. Emergence of adult fly. Structure of eyes, hairy legs, feet shown under high magnification. Dirty habits of fly illustrated. Control of flies advocated: covered garbage cans, burning or burying refuse, washing out containers which might contain material that would attract flies, screening windows and doors, protecting food, and "swat the fly".

1185. HOW A WATCH WORKS (1948) — A VI 1 — Hamilton
18 min.; color.
Basic design and operation of a watch; function of each part demonstrated on 7 1/2 foot in-line movement exact to scale. Four elements outlined: source of power, means of transmitting power; method of recording and method of controlling power. Main spring and barrel, pallet, escape wheel, gears, hair spring, jewels, balance wheel, second, minute and hour hands, explained.

1186. HOW ANIMALS DEFEND THEMSELVES (1948) — C II — YAF
10 min.*
Elementary science film on various ways in which nature has equipped creatures for defense and survival: speed and agility, tough shells and hides, sharp claws and beaks; camouflage, mimicry.

1187. HOW ANIMALS EAT (1948) — C II — YAF
10 min.*
Elementary science film explaining concept. that to survive, animals have developed methods of procuring food by use of teeth, claws, beaks, webs, poison mechanisms, etc.

1188. HOW ANIMALS MOVE (1948) — C II — YAF
10 min.*
Elementary science film on ways in which animals are adapted to move about in their environment in order to procure food, protect themselves and survive: wings, fins, legs, etc.

1189. HOW BILLY KEEPS CLEAN (1951) — A II 2 — CORONET
11 min.; also color.*
Child learns how to wash hands, face, neck, ears, and body; when to wash; importance of keeping clean.

1190. HOW DISEASE TRAVELS (1950) — A II 3 — STATE
12 min.; color.
How polluted water, contact with ill person, insect carriers spread sickness. How sickness can be stopped at sources by sanitary measures, isolation of sick, and other simple precautions.

1191. HOW EFFECTIVE IS YOUR READING? (1951) — A IV 2 — CORONET
10 min.; also color.*
Techniques for various reading situations and types of material. Skimming for overview; fast reading for general understanding; slow, careful reading for precise information.

1192. HOW FRIENDLY ARE YOU? (1951) — A VI 4 — CORONET
10 min.; also color.*
Everyday incidents in lives of young people

illustrate idea that best way to make friends is to be friendly.

1193. HOW HONEST ARE YOU? (1950) A VI 2
13 min.; also color.* CORONET
Incident involving alleged theft discussed and analyzed by teen-age group; social and psychological influences on interpretation of honesty; importance of knowing one's self, finding the truth, expressing the truth.

1194. HOW INDIANS BUILD CANOES (1948) A V 1 IntFB
10 min.; also color. *
Secrets of building as ancient Indians built canoes. From barks, roots, an iron pot and a knife, Indian family constructs a canoe in traditional fashion.

1195. HOW MAN MADE DAY (1946) C VIII
10 min.; also color.* CORONET
Development of illumination from primitive to modern times: how man learned to reduce heat and increase light of fire, improving his method of illumination until he could flood homes and cities with artificial light that turned night into day.

1196. HOW NATURE PROTECTS ANIMALS√√(1939) C II EBF
11 min.*
Protective adaptation of various animals to different environments. Kinds of protection: ability to run rapidly, mimicry, coloration, armor, secluded homes. Tiger, giraffe, zebra, horse, kangaroo, rabbit, chameleon, magpie, woodpecker, waterhen, pheasant, looper caterpillar, bee-hawk moth.

1197. HOW SEEDS GERMINATE (1931) C III
9 min.; silent; also 35 mm.** USDA
Actual germination of crimson clover and spring vetch shown over periods from three to seven days.

1198. HOW STEEL IS MADE (1943) A VII
(Highlights in Steelmaking, Part I) BETH
42 min.**
Principal steps in manufacture and processing of steel; animated cross-sectional drawings illustrate blast furnace smelting; open hearth, bessemer, electric furnace processes.

1199. HOW THE EAR FUNCTIONS (1940) C II KB
12 min.*
Ear structure and its mechanism; how sound waves are received by inner ear, converted into nerve impulses. Photography, animated drawings and sound used.

1200. HOW THE EYE FUNCTIONS (1940) C II KB
12 min.*
Structure and mechanism of human eye. Accommodation (focal adjustment) explained.

1201. HOW THE MOSQUITO SPREADS DISEASE (1938) A II 1r BRAY
15 min.*
Mosquito, genus anopheles, carrier of malaria; two phases in its life history explained. How malaria and yellow fever can be eliminated by (1) screening all human carriers until they are cured, (2) screening all well persons from mosquitoes; (3) eliminating refuse piles where mosquitoes may breed. Effective mosquito control illustrated.

1202. HOW THE RESPIRATORY SYSTEM FUNCTIONS (1951) C II BRAY
11 min.*
Air passages of the human body; their functional purposes. Exchange of dioxide and oxygen within the lungs; within body tissues. Mechanism of breathing (animated diagram). Necessity for proper posture, exercise, fresh air, rest emphasized.

1203. HOW TO ADD FRACTIONS √√ (1947) C VII 1 JHUNT
(Series on Fractions)
11 min.
Review of meaning of fraction and terms. How to add fractions which have common denominator; why denominator does not change. How to reduce to common denominator.

1204. HOW TO AVOID MUSCLE STRAINS (1949) A II 7c BRAY
15 min.*
Causes of muscle strains; how to avoid them. Action of muscles in conjunction with action of bones and joints. Correct and incorrect application of leverage principles as regards body movements in performing various tasks. How bad posture and incorrect and careless use of muscles may result in painful and serious injuries. Various types of hernias; weak spots in human body where they are liable to occur; how hernias may be avoided by common sense application of leverage principles in performing body movements.

1205. HOW TO BE WELL GROOMED (1948) A VI 4 CORONET
10 min.; also color.
Main principles of personal grooming; routine of good grooming habits. Personal appearance in relation to emotional, mental, and physical health.

1206. HOW TO CAPONIZE (1944) D I 2
10 min.; color; silent.* NYSExt
Technique of caponizing immature chicks; differences in appearance between adult capons and roosters.

1207. HOW TO CATCH A COLD√√(1951) A II 2 IntCPC
10 min.; color; cartoon. **
How a cold may be caught; how colds are spread; how a day or so in bed can help protect a family, office, school or entire community. Contagious colds. Colds as possible symptoms of more serious illness.

1208. HOW TO CHANGE FRACTIONS √ √ C VII 1
(1948) JHUNT
(Series on Fractions)
11 min.
Definitions and demonstration of equal fractions; how to find equal fractions with higher terms; with lower terms. Demonstration of lowest terms.

1209. HOW TO CHECK AND SURFACE FOUNDATIONS (1943) A VI 1 OE
(Shipbuilding - Marine Machinery Installation - 95)
19 min.*
Ship's engine; auxiliary machines; basic lines of ship; how to check location of machinery foundations to blueprint specifications; how to align and level foundations; how to surface or smooth foundations.

1210. HOW TO CONCENTRATE A IV 5
(1951) CORONET
10 min.; also color. *
Elementary skills of concentration demonstrated through audience participation: giving full attention to selected idea; seeking answers to specific questions; allowing occasional relaxation; establishing favorable conditions for concentration; eliminating distractions.

1211. HOW TO DEVELOP INTEREST A IV 5
(1950) CORONET
10 min.; also color.*
School boy develops interest in botany and commercial geography by learning to adopt inquiring point of view.

1212. HOW TO DIVIDE FRACTIONS √ √ C VII 1
(1948) JHUNT
(Series on Fractions)
11 min.
Meaning of division; rule for dividing by fraction; why divisor is inverted; how to use the rule.

1213. HOW TO FIND THE ANSWER C VII 1
(MATHEMATICAL PROBLEM CORONET
SOLVING) (1949)
10 min.; also color.*
Procedures in solving practical problems in arithmetic; importance of assembling data, estimating results, checking answers.

1214. HOW TO GET COOPERATION A VI 4
(1950) CORONET
10 min.; also color.*
How student gets cooperation from others in setting up an operator's club for audio-visual equipment in school system by having purpose, plan, an interest, an ability to interest others.

1215. HOW TO GIVE AND TAKE A II 4 e
INSTRUCTIONS (1951) CORONET
10 min.; also color.*
Arrangements for class picnic illustrate need for effective communication of instructions. Basic rules for giving instructions: be clear, know the steps in order, use effective methods, repeat immediately, check in action.

1216. HOW TO GROW DAHLIAS D I 3
(1950) IntFB
20 min.; color.*
Techniques and methods used in raising prize-winning dahlias.

1217. HOW TO GROW GLADIOLAS D I 3
(1950) IntFB
16 min.; color.*
How to grow prize-winning gladiolas.

1218. HOW TO GROW IRIS D I 3
(1950) IntFB
16 min.; color.*
How to grow iris (fertilizing, general care, hybridizing). Procedures for collecting, labeling, drying, marking seeds.

1219. HOW TO GROW ROSES D I 3
(1950) IntFB
16 min.; color.*
How to plant, prune, fertilize and care for prize-winning roses.

1220. HOW TO IMPROVE YOUR A III 1
HOUSE √ √ (1945) EBF
11 min.*
Economical methods of providing control of weather, adequate light, freedom from pests, safety, fire protection; pleasing appearance; need for community planning and individual home improvement.

1221. HOW TO JUDGE AUTHOR- A IV 5
ITIES (1948) CORONET
10 min.; also color.*
Story of student determining future career illustrates necessity of weighing authorities; outlines procedure and suggests basic criteria. Intended to encourage sound thinking.

1222. HOW TO JUDGE FACTS A IV 5
(1948) CORONET
10 min.; also color.*
Checking on story for school publication, students begin investigation into facts of case. Importance of verifying facts before formulating opinion. Attitudes and insights essential to clear thinking. Common errors illustrated: inaccuracies, platitudes, irrelevances, false analogies, false assumptions, loose use of words, etc.

1223. HOW TO MAKE A GOOD E V
IMPRESSION (1946) Har-Sey
20 min.; color.**
Offset lithographic process described; how it differs from letterpress and gravure. Step by step production of lithographed piece.

1224. HOW TO MAKE HANDMADE A V 1
LANTERN SLIDES (1947) IND
22 min.; color.
Production and utilization by teachers and

pupils in various school situations, of seven types of 3-1/4" x 4" slides.

1225. HOW TO MULTIPLY FRACTIONS √ (1948) — C VII 1 JHUNT
(Series on Fractions)
11 min.
Review of meaning of multiplication; rule for multiplying fractions; why the rule works.

1226. HOW TO OBSERVE (1950) — A IV 5 CORONET
10 min.; also color.*
Importance of observation to effective study habits; how to improve ability to observe. High school boy finds study assignments more interesting after he has improved ability to observe.

1227. HOW TO PLANT A SMALL SHADE TREE (1940) — E VI DAVEY
16 min.; color; silent.**
Value and beauty of shade trees. Tree planting expert demonstrates procedures for planting small shade tree. How large shade tree is moved by especially designed tree moving mechanical equipment.

1228. HOW TO READ A BOOK (1947) — A IV 2 CORONET
10 min.; also color
How to select appropriate book and use reading aids in volume; how to read at varying rates for differing materials and purposes; how critically to evaluate author's contribution to subject.

1229. HOW TO READ NEWSPAPERS (1951) — A IV 2 CORONET
11 min.; also color.*
How newsgathering, printing, distributing papers, relates to intelligent reading. How to skim, read headlines and news stories; why read more than one paper; role of opinions in papers; how intelligent reading of newspapers aids study.

1230. HOW TO REMEMBER (1950) — A IV 5 CORONET
10 min.; also color.*
How to memorize a selection; process and types of remembering; basic rules for making remembering easier.

1231. HOW TO SAY NO (Moral Maturity) (1951) — A VI 4 CORONET
10 min.; also color.*
Teen-agers discuss how to say "no" and keep friends by avoiding difficult situations, opportunely changing subject, being friendly but firm when saying "no."

1232. HOW TO STUDY (1946) — A IV 5 CORONET
10 min.; also color.*
How, organizing his work and budgeting his time, by reading with purpose and knowing how to locate reference material quickly, student gets more done in less time; practical attitude and methods demonstrated.

1233. HOW TO SUBTRACT FRACTIONS √ (1947) — C VII 1 JHUNT
(Series on Fractions)
11 min.
How to subtract fractions which have common denominator; how to subtract fractions from whole number. How to subtract fractions which do not have common denominator. How to subtract fraction from mixed number.

1234. HOW TO THINK (1950) — A IV 5 CORONET
13 min.; also color.*
Concentration, logic, observation, memory, imagination, and judgment as important elements of problem-solving.

1235. HOW TO WRITE EFFECTIVELY (1950) — A IV 3 CORONET
10 min.; also color.*
Rules for effective writing; consideration of material, audience, purpose; factors involved in editing. Exercise in classroom participation.

1236. HOW TO WRITE YOUR TERM PAPER (1948) — A IV 5 CORONET
10 min.; also color.*
"You" (the audience) are assigned a term paper, determine its topic, assemble available material, undertake research, outline treatment, prepare first draft and thoroughly complete the work in detail for final form.

1237. HOW WE COOPERATE (1950) — A VI 4 CORONET
10 min.; also color.*
Two primary school boys learn, through building their badminton court, that cooperation requires common purpose, plan and effort.

1238. HOW WE ELECT OUR REPRESENTATIVES (1947) — A VIII CORONET
10 min.; also color.*
Popular election in United States; procedure of registration, primary election, campaign, voting, counting ballots. Functional basis of democracy: the elective system.

1239. HOW WE GET OUR POWER (1949) — C VIII YAF
10 min.*
How all power comes from nature: wind, water, fuels, explosives, the atom.

1240. HOW WE LEARN (1951) — A IV 5 CORONET
11 min.; also color.*
High school boy finds, through guidance of teachers, that effective learning depends on a ready mind and appropriate materials.

1241. HOW YOU SEE IT (1937) — B VI 2 JamH
8 min.
How persistence of vision makes motion pictures possible. How image of object is transmitted by optic nerve to brain; how image fades, instead of stopping abruptly when object is removed from field of vision. How application of this principle to series of photographs

makes them appear in continuous motion. Construction of motion picture projector; optical reasons for shutter, lens, and sprockets.

1242. H_2O--NEW YORK (1950) A IX 1
27 min.; color.** NYSCom
Importance of water to economic, industrial, cultural development of New York State.

1243. HUDSON RIVER DAYLINE A IX 1
(1946) STATE
20 min.
Boat ride up Hudson River from New York and back: city sky line, Palisades, West Point, Bear Mountain, Hyde Park, Sunnyside, and other points of interest.

1244. HUMAN BEGINNINGS (1950) A II 4c
23 min.; color.* BECK
Psychological study of attitudes of small children toward advent of new baby in family; resolution of children's emotional problems through therapeutic art activities, group discussions, development of personal understanding.

1245. HUMAN BODY (1950) C II
9 min.; color. STATE
Very simple study of human body: bony structure, muscles, respiration, blood stream, brain. Importance of care of body through well balanced diet, fresh air, personal cleanliness.

1246. HUMAN BRIDGE, THE (1950) A VII
30 min.; color. ** FORD
Designing a motor car; assembling materials for its manufacture; production of car, testing, distribution. How combined skills of very many people are molded into finished car.

1247. HUMAN HAIR, THE (1948) C II
11 min.* BRAY
Hair as part of skin; its analogous development. Growth of hair within follicle; its individual duration; renewal after shedding; various other characteristics, including relation to sebaceous gland and its secretion. Cause and appearance of "goose flesh". Importance of hair to personal appearance.

1248. HUMAN REPRODUCTION C II
(1948) McG-H
(Health Education Series)
22 min.
Structure and functions of human reproductive systems and process of birth as they should be understood by adults in order to inform children; importance of clear objective understanding of facts as basic to successful marriage and parenthood.

1249. HUMAN SEMEN ANALYSIS-- C II
MOTILE SPERMATOZOA AS WISTAR
INDEX OF FERTILITY IN MEN
(1951)
12 min.*
Views of sperm populations typical of various fertility classifications of man (phase microscopy); accuracy of new method of actually counting number of active sperm, demonstrated. Duration of sperm motility in female tract; progressive spermatozoa shown after being in uterus forty-two hours. Reduction in sperm count upon repeated coitus demonstrated; time for recovery to normal representative level shown. Rate of sperm travel. Human ova being attacked and surrounded by sperm. Value demonstrated of new method of counting, as basis for index of fertility. Results of certain experiments relative to male fertility. (Dr. E. J. Farris)

1250. HUMAN SEMEN ANALYSIS-- C II
TECHNIQUE FOR COUNTING WISTAR
MOTILE SPERM (1951)
10 min.*
Improved technic for making analysis to determine human male fertility. Views demonstrate: (1) Liquefaction of fresh specimen; (2) Technic of making counts of moving sperm; (3) Measurement of speed of cells; (4) Method of obtaining index of fertility from figures for volume, count of sperm per cm3, and percentage of motility used to calculate actual number of moving spermatozoa in ejaculate. (Dr. E. J. Farris)

1251. HUMAN SKELETON, THE A II 1 a
(1952) UWF-GB
(Human Biology Series)
11 min.*
Skeletal functions in support, protection, movement of body; main skeletal parts; structure and various types of joints, elbow and wrist action. Human model, diagrams, X-ray photography.

1252. HUMAN SKIN, THE (1947) C II
11 min. * BRAY
Functions and anatomical structure of human skin. Skin an organ that protects from environment and regulates temperature of human body. Anatomical and functional features; layers of skin; its growth; oil and sweat glands; nerves and sense organs; blood supply. Effect of nerve impulses upon latter. Process of temperature regulations described. Permanency of finger prints explained. Care and cleanliness urged for preservation of natural beauty and health of skin, as vital organ acting in close harmony with all other organs to maintain healthy activities.

1253. HUMAN THROAT, THE (1947) C II
11 min. * BRAY
Throat, consisting of pharynx and larynx, described from anatomical and functional aspect; general anatomy of pharynx, connection with middle ear, nose and esophagus; defense mechanisms; tonsils and ciliated epithelium seen in action. General anatomy of larynx; laryngoscopic aspect; mechanism operating rimal opening between vocal cords

during breathing and voice production; how larynx closes to permit passage of food during swallowing, etc.

1254. HUMMINGBIRD HOMELIFE (1945) C II S-M
11 min.; also color.*
Nesting habits of hummingbird: how it gathers food, feeds and cares for its young.

1255. HUNTING ANIMALS OF THE PAST (1950) C VI UofNeb
20 min.; also color.*
How vertebrate paleontologists locate and excavate fossil bones, prepare and ship specimens, restore and assemble skeleton parts; display of complete skeleton in museum.

1256. HUNTING THE PUMA (1950) A V 2
16 min.; color.** F&WS
Mountain lion hunt in detail; why large predators must be killed. Treeing and killing of a large "stock-killer." Capture of young lion. Close-ups of deer, bighorn, wild burro, grizzly bear, coyote, bobcat, puma.

1257. HURDLES, THE (1947) A V 2
10 min.* UWF
Basic hurdling styles; rear hip and leg action; rhythmic running; hurdling calisthenics; body balance; correct clearance; circular step-over action; adaptation of styles to varying physiques.

1258. HURRICANE CIRCUIT (1949) C VIII
23 min. STATE
How hurricane menace in Caribbean and Gulf of Mexico areas is reduced by warning system centered at Miami, Florida. International aspects of service, operations of warning system, precautions against damage; rescue and relief measures as hurricane strikes. Animation explains origin and nature of hurricanes.

1259. HYBRIDS, THE (1949) A I 1
16 min.; color. ** AllisC
How mechanized equipment in industry, transportation and agriculture, and scientific plant breeding have increased production and raised living standard in the United States. Development of hybrid corn illustrated in detail. Other hybrids, animal and vegetable; possible development of still more.

1260. HYDRA√ (1949) C II
(Zoology Series) UWF-6B
10 min.*
Fresh water polyp filmed in native habitat. Details of mouth structure, ingestion of food; locomotion. Diagrams show body wall layers and cells. Hydra's ability to replace cell and regenerate body parts. Sexual and asexual reproduction.

1261. HYDRAULIC DREDGING A II 3a
(4-044) (1947) CDC
5 min.; also color.**
Technique of converting marshes into clear lakes by means of hydraulic dredging. Operation of dredge at beginning of job; completed lake afterward.

1262. HYDRAULIC SYSTEM, THE A VI 1
(1944) OE
(Automobile Operation and Maintenance--Automobile Maintenance--483)
12 min.*
How to check brake pedal travel; examine brake lining; adjust brake shoes; inspect and adjust hydraulic brake fluid system.

1263. HYDRAULICS (1936) C VIII
8 min. JamH
Principle of hydraulic pressure explained; how liquids are used to transmit power. Some ways in which hydraulic pressure is utilized: elevators, giant long-range guns, stage equipment in Radio City and hydraulic brakes of modern automobile.

1264. HYDROTHERAPY (1944) A II 1 1
(Nursing--410) OE
22 min.*
How to administer sedative baths and wet-sheet packs; tonic showers, douches, and sprays; special types of therapeutic baths; rehabilitation hydrotherapy in Hubbard bath and rehabilitation pool; physiological effects of hydrotherapy upon body.

1265. HYDROTHERAPY PROCEDURES FOR NEURO-PSYCHIATRIC PATIENTS (1949) A II 4d VETS
20 min. **
Training in hydrotherapy to supplement didactic and clinical training in care of psychiatric patient: tubs, packs, showers, how appropriately administered for sedation and stimulation.

1266. HY-LINE FARM PARADE (1950) D I 2
24 min.; color ** Pioneer
How hybrid chicken performs on farm. How hybrid chickens are produced (method similar to that used in producing hybrid corn); advantages of hybrids: higher egg production, longer laying period, more flock uniformity, fewer culls, better egg quality. Flock owners in eight states report on their hybrid flocks.

1267. HYPNOTIC BEHAVIOR (1950) A II 4c
26 min.* ASSOC
Common phenomena of hypnosis: induction of trance; eye and arm catalepsy; insensibility to pain; abnormal thermal, gustatory and olfactory illusions; blindness and deafness; awakening from trance; post-hypnotic amnesia. Execution of two complex post-hypnotic suggestions. (Dr. Lester F. Beck, Department of Psychology, University of Oregon).

1268. HYPODERMIC SYRINGES AND NEEDLES--CARE AND FUNCTION (1948) — A II I 1 BecD
50 min.**
Methods employed in manufacturing and testing hypodermic syringes and needles; handling of raw material, various manufacturing steps, testing finished product. How to prepare syringes and needles for a sterilization; steps in cleaning, washing, etc. Importance of proper use and care of scientific instruments, syringes and needles especially.

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1269. I.V. STAT (1950) — A II 1 1 CUTT
20 min.; color. **
Techniques of administering intravenous infusion; care commercial laboratories take in preparing hospital solutions.

1270. I WANT TO BE A SECRETARY (1951) — A VI 5 CORONET
10 min.*
Vocational interest of clerical field examined; different kinds of work to be done within field; aptitudes necessary for clerical proficiency.

1271. ICE CREAM (1948) — A VII EBF
11 min.*
How ice cream is made in home and industry; Stages of manufacture of commercial ice cream.

1272. ICE RESCUE (1945) — A II 5 BSA
4 1/2 min. *
Techniques of ice rescue demonstrated.

1273. ICEBERG PATROL (1933) — A IX 1 TFC-20th Cent-Fox
(Magic Carpet Series)
10 min.*
Work of United States Iceberg Patrol; life on patrol boats. Polar icecap; glaciers; formation of icebergs. How shipping is warned.

1274. IDAHO ADVENTURE IN ENTERPRISE (1950) — A IX 1 IdaFN
29 min.; color.
Natural resources and wealth-producing industries of State of Idaho; tourist and recreational facilities, scenic beauty; lumbering, mining, agriculture, live-stock, manufacturing; role of bank in developing natural resources, business and industry.

1275. IDENTIFYING AND PRECUTTING CABLE (1944) — A VI 1 OE
(Shipbuilding--Marine Electricity--112)
19 min.*
How cable is precut and put on reels; how salvaged; how to identify VCLA cable used in merchant ships; how cable is measured in circular mile with American wire gage.

1276. IGNITION AND SPARK PLUGS√√(1948) — C VIII Champ
19 min. **
Relationship of spark plugs to ignition system; performance, maintenance, cleaning and testing of plugs.

1277. ILLUSTRATION OF THERBLIG CHECK LIST (1942) — A VI I PURDUE
Projection time as desired (participational; 134 ft.); silent. *
How therblig check list can be applied to jobs for purpose of developing improved method. Several jobs being performed; appropriate check list applied for purpose of devising new method.

1278. IMMEDIATE DENTURE SERVICE (1937) — A II 1e 5 UMINN
60 min.; color; silent. *
Construction of immediate upper and lower denture from beginning diagnosis through insertion of completed denture. Surgery and extractions shown.

1279. IMMIGRATION (1947) — B VII EBF
11 min. *
Immigration into United States, colonial times to present. Animation shows where immigrants came from, where they settled, why they left their homes for America. How immigrants enter this country; how many later apply for citizenship.

1280. IMMUNIZATION (1947) — A II i j EBF
11 min. *
Immunization defined; how immunity to infectious disease is attained. Vaccination explained. How vaccines are prepared and used.

1281. IMMUNIZATION AGAINST INFECTIOUS DISEASES (1943) — A II 1j Acc-LEDER
45 min.; color; silent. **
Active immunization (subcutaneous route except smallpox) against exotoxic diseases (diphtheria, scarlet fever, tetanus); endotoxic diseases (pertussis, typhoid fever, paratyphoid fevers A and B, cholera, plague); viral and rickettsial diseases (smallpox, equine encephalomyelitis, rabies, yellow fever, Rocky Mountain spotted fever, typhus). Active immunization not available against gas gangrene, epidemic meningitis, erysipelas, pneumonia, influenza, dysentery, tularemia, tuberculosis, encephalitis, common cold, poliomyelitis, measles, mumps, chicken pox, German measles. Passive or borrowed immunization (intramuscular route) practicable against diphtheria, scarlet fever, tetanus, gas gangrene, pertussis, measles, chicken pox, mumps.

1282. IMPLANTATION FOR ENUCLEATION (1948) — A II 1q BURKE
15 min.; color; silent. *
Advantages of implantation for enucleation

demonstrated. Muscles attached to each other; cap on implant prevents pressure on conjunctiva by prosthetic appliances; leverage provided for muscles so movement of artificial eye is satisfactory; sunken appearance of upper eyelid obviated by distribution of weight of prosthesis between muscles and lids.

1283. IMPORTANCE OF GOALS √ (1950) A II 4c McG-H
(Educational Psychology Series)
19 min.
Dramatized story concerning schoolboy (both in and out of the school room) to show that all education is effort to attain basic, meaningful goals; to hold students' attention they must be shown something to work toward.

1284. IMPORTANCE OF MAKING NOTES (1951) A IV 5 CORONET
10 min.; also color.*
Note-taking as valuable study aid; how to find key ideas for notes; when to take verbatim notes; when notes should not be taken.

1285. IMPORTANCE OF WATER (1948) C VIII Bailey
11 min.; also color.
Varied uses of water; water conservation. Water sheds, flood control installations; experimental projects.

1286. IMPROVE YOUR HANDWRITING (1949) A IV 3 CORONET
10 min. ; also color. *
Fundamentals of good handwriting; how student may improve his own handwriting.

1287. IMPROVE YOUR PERSONALITY (1951) A VI 4 CORONET
10 min. ; also color. *
How personality can be improved by sympathetic consideration for viewpoints of others.

1288. IMPROVE YOUR PRONUNCIATION (1948) A IV 1 CORONET
10 min. ; also color. *
Story of student who realized his shortcomings in pronunciation and overcomes them; stresses basic rules of clear, correct, natural pronunciation of English.

1289. IMPROVE YOUR SPELLING (1951) A IV 5 CORONET
11 min. ; also color. *
High-school boy improves term paper through recommended procedure for learning spelling of words; audience participates by learning spelling of words and procedure.

1290. IMPROVED METHOD-ASSEMBLING CLUTCH COLLAR (1942) A VI 1 PURDUE
Projection time as desired (participational; 34 ft.); silent. *
Improved method of assembling clutch collar. See "Three Operations for Operation Analysis--Original Method."

1291. IMPROVED METHOD-REMAINING OPERATIONS (1942) A VI 1 PURDUE
Projection time as desired (participational; 34 ft.); silent. *
Improved method of packing remote control rods and assembling relay blocks. See "Three Operations for Operation Analysis--Original Method."

1292. IMPROVING CHICKENS BY CROSSING INBRED LINES (1948) D I 2 Pioneer
24 min. ; color. **
Inbreeding process for developing commercial production of hybrid chickens, illustrated. Chickens trap-nested; eggs marked, hatched, chickens wing-banded; hatching recorded; brooding houses, hardening houses, range houses. Chickens sorted, blood-tested, inbred. Inbreeding carried to fourth year, when chickens are crossed; sixth year, four-way cross tested on selected farms. Crosses then inbred and eggs hatched for commercial production the eighth year.

1293. IMPROVING THE JOB (1944) A VI 1
(Problems of Supervision--163) OE
9 min. *
Supervisor asks one of his workmen for suggestions for preventing waste; workman explains situation to members of his family at home and methods for preventing waste are brought out.

1294. IMPROVING YOUR POSTURE (1949) A II 6 CORONET
10 min. ; also color. *
Major areas of human body by which posture is controlled; good posture defined: a balance of opposing sets of muscles; how to maintain good posture. Relaxation, self-diagnosis and correction.

1295. IN DAILY BATTLE (1947) A I 5b
26 min. ; also 35 mm. ** NFIP
How a National Foundation for Infantile Paralysis aids patients and utilizes community facilities. To inform fraternal and civic organizations, hospitals, professional organizations. Not for children.

1296. INAUGURATION OF PRESIDENT TRUMAN (1949) A VIII STATE
18 min.
Presidential inauguration ceremonies in Washington, D.C., January 20, 1949, including oath of office, inaugural address, and review of parade.

1297. INDIAN COWBOY (1948) A VIII
25 min. ; color. USIndS
In great drought of 1934 United States Government loaned cattle saved from stricken areas to Indians on promise of a calf back for every animal loaned. How some tribes ran this "shoestring into a tannery" told to encourage other Indians to organize and profit by reimbursable cattle programs.

1298. INDIAN FORESTS OF SOUTH-WEST (1947) — D III USIndS
18 min. ; color.
Sustained yield plan of scientific forestry explained; importance of forest cover for protection of grazing land, prevention of erosion and floods, and as refuge for game and fish. Methods of fire control. Ft. Apache and Navajo Reservations shown.

1299. INDIAN GARDENS IN OKLAHOMA (1941) — D I 1 USIndS
10 min. ; color.
How Indians of Oklahoma have irrigated community gardens.

1300. INDIAN HOUSE, THE (1950) — E 1 GATE
8 1/2 min. *
History of Southwest (U.S.A.) as reflected in architecture: contribution of aborigines, Spanish and later influences (exteriors).

1301. INDIAN LIFE IN NEW MEXICO (1950) — A IX 1 STATE
19 min.
Navajo country, New Mexico; life and crafts of Navajo Indians: pottery making, adobe construction, irrigation farming, tribal ceremonies; impressionistic paintings by Georgia O'Keefe.

1302. INDIRECT INGUINAL HERNIA (1929) — A II 1a EBF
42 min. ; also 35 mm. ; silent.
Anatomy of inguinal region: Diagrams illustrating increased stress in groin as result of man's erect posture, descent of testes in fetus; diagrams showing main anatomical landmarks; cadaver dissection showing anatomical structures encountered as dissection proceeds; diagrams showing relationship of these structures as viewed from within abdominal cavity. Clinical aspects: Animated diagrams superimposed over actual cases illustrate incomplete hernia, complete or scrotal hernia, incomplete indirect hernia, and complete indirect hernia. Surgical treatments Essential steps in repair of indirect inguinal hernia.

1303. INDIRECT MEASUREMENT√√(1949) — C VII 3 KB
(Practical Geometry Series)
12 min. *
Need for indirect measurement techniques establishing by showing situations where direct measurement cannot be made. Three methods of indirect measurement: congruent triangles, similar triangles, trigonometry.

1304. INDIVIDUAL DIFFERENCES√(1950) — A II 4c McG-H
(Educational Psychology Series)
23 min.
Case study of child "different" from classmates because over-shadowed by older, socially-adept brother. How child's sense of inferiority and frustration are overcome, by understanding teacher's handling of situation.

1305. INDUSTRIAL REVOLUTION√√ (1942) — A VII EBF
11 min. *
Industrial progress of last 200 years contrasted with slow advance during preceding centuries. Economic, social, cultural improvement of people retarded by necessity for hand labor and existence of only crude, clumsy machines. Contribution of labor-saving devices to rising standard of living. Mass production techniques, rapid communication, fast transportation,

1306. INFANT CARE AND FEEDING (1950) — A II 11 STATE
9 min. ; color.
Family with four healthy children is expecting "Little Number Five." Wise mother observing proper diet, taking care of herself and baby while he is very young; proper feeding after he begins to take solid food. By visiting prenatal clinic she helps to make him strong and healthy.

1307. INFANT LARYNX, THE (1943) — A II 1n JHMF
13 min. ; color; silent. *
Laryngoscopic views of larynges of infants and small children: congenital web, congenital stridor, papillomata, acute laryngotracheobronchitis, stenosis, etc. (Dr. P.H. Holinger)

1308. INFECTIOUS HAZARDS OF BACTERIOLOGICAL TECHNIQUES (M57)√ (1951) — A II 7c CDC
13 min. ; color. **
How to determine whether bacterial aerosols are produced during performance of many accepted bacteriological procedures.

1309. INFECTIVE LARVAE OF WUCHERERIA BANCROFTI (4-059) (1947) — A II 1r CDC
4 min. ; color also; silent. **
Photomicrography depicting activity of infective larvae of W. Bancrofti. Specimens obtained by infecting mosquitoes with microfilariae (diurnal) from a Society Islands infection. Emergence of infective larvae shown.

1310. INFEED GRINDING A SHAFT OF TWO DIAMETERS (1944) — A VI 1 OE
(Machine Shop Work--Centerless Grinder--88)
31 min. *
How to profile-grind shafts by infeed method; use cams in profiling regulating and grinding wheels; profile wheels; set up centerless grinding machine for job; and rough-and finish-profile grind.

1311. INFEED GRINDING SHOULDERED WORK√(1944) — A VI 1 OE
(Machine Shop Work--Centerless Grinder--87)
23 min. *

Basic principle of infeed grinding; use of automatic ejector; how to tilt regulating wheel for this type of grinding; adjust end-stop; position work for grinding; correct work ground out of round; and check work with V block, indicator, and micrometer.

1312. INGUINAL HERNIOPLASTY (1947) A II 1q BURKE
15 min. ; color; silent. *
Method of repairing direct inguinal hernia, indirect inguinal hernia, or combination of both. Anatomical points of importance stressed. Medial incised border of external oblique, internal oblique, and conjoined tendon treated as one layer in their approximation to shelving edge of Poupart's ligament; Cooper's ligament incorporated in lower portion of approximation, for additional strength; fascia to fascia approximation. Minimum amount of suture material (cotton).

1313. INJURIES OF THE PERIPHERAL NERVES (1949) A II 1q ETHICON
20 min. ; color. **
Pathology which arises when peripheral nerve is severed; physiology of regeneration after nerve is repaired. Injury depicted; selected cases to illustrate clinical results following nerve injuries. Method of repairing nerve. Postoperative management; types of physical therapy. (Dr. Loyal Davis)

1314. INNER EAR, THE (1951) C II
40 min. ; color. * MFGuild
Physical construction of the human inner ear; how it functions. How sound affects inner ear; "seeing" the ear hear.

1315. INNERBOTTOM SECTION: SUB-ASSEMBLY OF A CLOSED FLOOR; SUB-ASSEMBLY OF AN OPEN FLOOR (1942) A VI 1 OE
(Shipbuilding--Shipfitting--25)
18 min. *
Work of shipfitter in laying off closed floor from template; locating and fitting vertical stiffener, flat bar ring, face plate. Vertical keel, flat keel, keelson floors, universal template mold defined; their functions explained.

1316. INNERBOTTOM, THE: SETTING UP FLOORS AND LONGITUDINALS (1942) A VI 1 OE
(Shipbuilding--Shipfitting--26)
18 min. *
Cooperative work of shipfitter and shipwright in setting and fitting closed floor in innerbottom section. Fairing and declivity defined; correct use of wedges, spur shores, bar and turnbuckles shown.

1317. INOCULATING NEEDLE, THE (M57a)√ (1951) A II 7c CDC
(Infectious Hazards of Bacteriological Techniques Series)
10 min. **
How care in using inoculating needles can reduce production of bacterial aerosols, and minimize danger to technicians using inoculating needles with infectious organisms.

1318. INSECT ENEMIES√ √(1947) D I 4
7 min. ; color. I.I-A.A.
Importance of insect control; practical means of control which any farmer can adopt.

1319. INSECT ZOO (1950) C II
10 min. ; color. * EBF
Child's zoo comprised of insects; close-up photography shows distinguishing features of common insects; how simple homes can be made for insects.

1320. INSECTS AS CARRIERS OF DISEASE (1950) A II 1r I.I-A.A.
9 min. ; color.
Careless Charlie lives with flies, lice and mosquitoes until he learns how they make him sick; then becomes Careful Charlie, applying simple methods of eradicating pests.

1321. INSIDE OF ARC WELDING (1943) A VI 1 GE
60 min. ; color. **
Series in six reels: (1) four principal factors in good arc welding (current setting, angle of electrode, arc length, speed of travel); effect on molten pool; (2) fillet and groove welds for flat position; (3) for horizontal position, with techniques for both positions; (4) larger electrodes for both positions for greater speeds, increased deposition rates and improved quality through minimized arc blow; (5) vertical position and (6) overhead position in close-up views of fillet and groove welding.

1322. INSIDE OF ATOMIC-HYDROGEN ARC WELDING, THE (1943) A VI 1 GE
20 min.; color. **
Part I. Uses for atomic-hydrogen arc welding; construction, operation, advantages of this type of welder; functioning of the two tungsten electrodes explained; control and adjustment of hydrogen flame. Use of chart essential. Part II. Techniques of welding with atomic-hydrogen arc equipment illustrated: butt and flat joints, fillet weld.

1323. INSIDE THE CAPITOL (1939) A IX 1
(Washington Parade Series) TFC-Columbia
10 min. *
Detailed trip from cellar to dome of capitol building in Washington. Paintings and sculpture. Sessions of Senate and House.

1324. INSIDE THE CELL (PMF 5077A, B) (1949, 1951) C IV USArmy
40 min. ; color. **
Part I. Enzymes in intra-cellular chemistry. Concepts of intracellular enzymatic action; biochemical phenomena illustrated by anima-

tion. Live action sequences show laboratory technic of several Nobel prize winners. Part II. Regulation of Enzymes. Present concepts of factors regulating enzyme action, location and quantity. Chemical environment. Activators. Inhibiting ph. Laboratory demonstration of feeding radioactive acetate to rats. (Glycolysis, Krebs Cycle.) Effects of drugs on enzymes. Action of anti-metabolites.

1325. INSIDE THE LIBRARY OF CONGRESS (1939) (Washington Parade Series) 10 1/2 min. * — A I 2 TFC-Columbia

Various rooms and departments of Library of Congress in Washington; divisions and their content. Original editions of famous books and historic documents.

1326. INSPECTING AND ADJUSTING HYDRAULIC BRAKES (1944) (Airplane Maintenance--Aircraft Maintenance--255) 13 min. * — A VI 1 OE

How to inspect hydraulic brake system; bleed brakes; add fluid to hydraulic system reservoir; how hydraulic brakes operate.

1327. INSPECTING AND RECONDITIONING PISTON ASSEMBLY (1944) (Airplane Maintenance--Power Plant Maintenance--263) 22 min. * — A VI 1 OE

How to clean, inspect, and recondition piston assembly; measure clearances; install new piston rings.

1328. INSPECTING AND RECONDITIONING VALVE ASSEMBLY (1944) (Airplane Maintenance--Power Plant Maintenance--264) 25 min. * — A VI 1 OE

How to disassemble valve mechanism, clean and recondition parts; measure clearances; reassemble the valve mechanism; reinstall pistons and cylinders.

1329. INSPECTION OF MINOR ASSEMBLIES√(1944) (Aircraft Work--Inspection--146) 16 min. * — A VI 1 OE

How to inspect minor assembly in detail; read rivet specifications; inspect rivets.

1330. INSPECTION OF PLUMBING AND PIPING√(1944) (Aircraft Work--Inspection--147) 17 min. * — A VI 1 OE

How to inspect plumbing and piping in detail; verify materials used; inspect installation of part in plane; identify different plumbing lines.

1331. INSPECTION OF SHEET METAL PARTS (1944) (Aircraft Work--Inspection--145) 20 min. * — A VI 1 OE

How to plan inspection routine; inspect sheet metal part in detail; make visual inspection; and spot checks.

1332. INSPECTION OF THREADS (1944) (Aircraft Work--Inspection--148) 22 min. * — A VI 1 OE

How to identify different parts of American National Standard Thread; inspect external threads with roll snap gage; adjust roll snap gage; inspect internal threads with plug gage.

1333. INSTALLING AND ALIGNING TAIL SURFACES (1944) (Airplane Maintenance--Aircraft Maintenance--259) 19 min. * — A VI 1 OE

How to inspect damaged tail surfaces; remove them; prepare new parts for installation; install new stabilizers, elevators, and rudder.

1334. INSTALLING AND CONNECTING TELLTALE PANEL (1944) (Shipbuilding--Marine Electricity--116) 15 min. * — A VI 1 OE

How to lay out telltale unit; remove insulation from cable; reinsulate conductors and cable; connect conductors to multi-connection box.

1335. INSTALLING CONDUIT (1944) (Electrical Work--Motor Control--381) 25 min. * — A VI 1 OE

How to bend electrical metallic tubing; install metallic tubing runs; bend rigid conduit; install rigid conduit runs; use flexible conduit.

1336. INSTALLING LANDING GEAR (1944) (Airplane Maintenance--Aircraft Maintenance--257) 19 min. * — A VI 1 OE

How to remove damaged landing gear; replace old bolts, nuts and cotters with new parts; install aircraft bolt; assemble and install new landing gear; check alignment and track of wheels.

1337. INSTALLING SURFACE METAL RACEWAY√(1944) (Electrical Work--Wiring--380) 22 min. * — A VI 1 OE

How to install molding raceway run to ceiling outlet; from ceiling outlet to wall switch; from ceiling outlet to wall fan; and to floor outlet.

1338. INSTALLING VALVES AND STRAINER ON SEA CHEST (1943) (Shipbuilding--Marine Machinery Installation--99) 13 min. * — A VI 1 OE

How studs are ordered for tapped flanges; how studs are driven; how driven studs are checked for accuracy of driving; how valves are installed on sea chests; and strainer prepared for installation, and installed on sea chest.

1339. INSTALLING VALVES IN ENGINE ROOM SYSTEMS (1944) (Shipbuilding--Pipefitting--123, 124) 28 min. * A VI 1 OE

Part I: Principal engine-room units; traces cycle of steam in engine-room systems; shows functions of gate valve, globe valve, angle valve, swing-check valve, lift-check valve. Part II: How to install globe valve in main steam line; typical installations of gate, angle, and swing-check valves; how to install flanged valves; valves with threaded fittings; a threaded valve where clearance is limited.

1340. INSTALLING VITREOUS FIXTURES (1944) (Shipbuilding--Pipefitting--121) 19 min. * A VI 1 OE

Correct handling of vitreous china fixtures; how to lay out, drill and tap seating; measure and cut brass studs; make water tight installations; assemble and connect flushometer.

1341. INSTALLMENT BUYING (1948) 10 min.; also color. * A VII CORONET

Young doctor needs new furniture for waiting-room; cannot pay cash. His experience dramatically demonstrates some pitfalls of installment buying, and encourages complete investigation of installment credit, contracts, and interest rates. Three questions to answer before buying on credit.

1342. INSTRUCTING THE BLIND WORKER ON THE JOB (1945) (Problems of Supervision--166) 17 min. * A VI 1 OE

Blind person given instruction on production drill press job by expert instructor; learns quickly under good instruction; soon becomes competent operator.

1343. INSTRUCTING THE DISABLED WORKER ON THE JOB (1946) (Problems of Supervision--400) 14 min. * A II 6 OE

How attitude of instructor toward disabled person can affect his success or failure in learning job.

1344. INSTRUCTING THE WORKER ON THE JOB (1944) (Problems of Supervision--155) 14 min. * A VI 1 OE

New girl worker, told how to do job on drill press, fails to master job. Supervisor then does careful job of instructing next girl, who becomes competent operator.

1345. INSTRUCTIONAL FILMS--THE NEW WAY TO GREATER EDUCATION (1948) 25 min. ** A I 1 CORONET

How audio-visual teaching saves time in presenting complex ideas, saves money by bringing costly equipment into classroom, makes distant things as near as classroom motion picture screen, and makes students see familiar objects in new light. Importance of proper selection, integration, and administration of educational film program under audio-visual director, stressed.

1346. INSURANCE AGAINST FIRE LOSSES (1952) 17 min.; color. * A VII EBF

Basic principle of spreading risk through fire insurance; detailed operation of insurance companies; activities to reduce fire losses.

1347. INTERDEPENDENCE OF LIVING THINGS (C. 1930) 15 min. * C II BRAY

Sun source of all animal and plant energy. How burning of organic matter and animal oxidation yields energy, carbon-dioxide, and water. Synthesis of sugar by green plants and migration of sugar from leaf to root; migration of water from root to leaf. Animals dependent on plants. Bacteria decompose animal wastes and make them available for plants.

1348. INTERMEDIATE TUMBLING (1945) (Tumbling Series, II) 10 min.; also color. * A V 2 CORONET

Twenty stunts in handspring, balance and somersault progressions. Companion stunts shown; safety spotting indicated. How to avoid accidents, stressed. Technique and form emphasized.

1349. INTERNAL ORGANIZATION √ (1951) (Industrial Organization and Management, Set 1) 10 min. A VII McG-H

Purposes of business organization; basic organizational principles: delegation of authority, division of labor, assignment of responsibility, etc. Types of organization.

1350. INTERNATIONAL HOUSE (1950) 10 min. B II STATE

International Houses in New York, Chicago and San Francisco offer foreign students in American Universities a place to live, meet, study, exchange ideas and mingle with American students in sport or social activities.

1351. INTERNATIONAL ICE PATROL (1949) 22 min. B V 2 STATE

Iceberg menace in North Atlantic shipping lanes eliminated through ice patrol operated by United States Coast Guard under international agreement. Locating typical iceberg by sea and air patrol, including use of radar; follow-up warnings to ships.

1352. INTRA-ABDOMINAL CLOSURE DESCENDING COLON COLOSTOMY (HERNIATIONS AND MULTIPLE OPENINGS) (PMF 5004) (1947) 15 min.; color. ** A II 1 q USArmy-P

Colostomy of descending colon midway between umbilicus and anterior iliac crest with four separate openings resulting from damage to exteriorized loop of bowel; technique used to effect repair.

1353. INTRA-ABDOMINAL COLOSTOMY CLOSURE (PMF 5007) (1947) A II 1q USArmy-P
10 min.; color. **
Technique of intra-abdominal colostomy closure, right to left side.

1354. INTRA-ABDOMINAL COLOSTOMY CLOSURE (TRANSVERSE LOOP, PAUCHET METHOD) A II 1q USArmy-P
11 min.; color. **
Paucher method of colostomy closure in case located near umbilicus with associated defect in rectus muscle.

1355. INTRAORAL AND PHARYNGEAL STRUCTURES AND THEIR MOVEMENTS (1950) A II 1a VETS
18 min.; color. **
Physiological activity of tongue, soft palate and epiglottis.

1356. INTRAPERITONEAL SIGMOID COLOSTOMY CLOSURE (SIDE TO SIDE ANASTOMOSIS) (PMF 5006) (1947) A II 1q USArmy-P
10 min.; color. **
Method of accomplishing side to side anastomosis; advantage of very wide stoma.

1357. INTRATHORACIC GOITER (No. 118) (1941) A II 1q DG
17 min.; color; silent. **
Technique of standard operation for intrathoracic goiter (Lahey Clinic).

1358. INTRAVENOUS ANESTHESIA AND TRACHEAL INTUBATION (1951) A II 1b BURKE
42 min.; color. *
Clinical aspects of intravenous anesthesis; use of various apparatus for maintenance of airway. Improvisations and inventions: including laryngoscope with epiglottic fenestration, special pentothal-giving apparatus, and non-rebreathing valve. Principles discussed as applied to brain, tongue, nose and throat surgery. Contraindications adequately presented. Anesthesiologist's duties and responsibilities reviewed.

1359. INTRODUCING THE NEW WORKER TO HIS JOB (1944) A VI 1 OE
(Problems of Supervision--154)
16 min. *
As new worker is started on job, induction is done poorly; then it is done over again, as it should be. Difference between first and second ways of inducting worker is obvious.

1360. INTRODUCTION TO AIRPLANE RIVETING (1942) A VI 1 JamH
22 min.
Selection, types and uses of various kinds of rivets in airplane manufacture and maintenance. Various rivets defined as shown; storage, heat treatments and spacing of rivet. How work is laid out. Drilling rivet holes shown and explained.

1361. INTRODUCTION TO APHASIA (1950) A II 4b VETS
(Series on Aphasis)
25 min.; color. **
Over-all definition of aphasia. Anatomical basis of language: function of speech and its understanding. Forms of aphasia: agnosia, agraphia, paraphasia, etc. Illustrated by actual, typical cases.

1362. INTRODUCTION TO CHEMISTRY (1949) C IV CORONET
10 min.; also color. *
Definition of chemistry; some important terms and materials; illustrations of some industrial applications; home and farm uses.

1363. INTRODUCTION TO ELECTRICITY (1947) C VIII CORONET
10 min.; also color.
Two children discover static electricity in a comb; investigate current electricity; cells; electrons; attraction, repulsion; conductors; circuits; insulators; magnets; lines of force. Uses made of electricity.

1364. INTRODUCTION TO FOREIGN TRADE (1951) B IV CORONET
11 min.; also color. *
How foreign trade is carried on; how it differs from domestic trade; importance to economy. Animated maps, models.

1365. INTRODUCTION TO FRACTIONS√√(1947) C VII 1 JHUNT
(Series on Fractions)
11 min.
Review-foundation film (preview, orientation). Terms of fraction defined; meaning demonstrated. How to determine value of fractional part.

1366. INTRODUCTION TO JAZZ (1951) E VII UCLA
10 min.; sepiatone. *
Historical significance of jazz (primary folk music) portrayed in impressionistic journey through days of Negro slavery to modern jazz thought and rhythm; "the New Orleans period."

1367. INTRODUCTION TO MAP PROJECTION (1951) C V UWF-GB
(Physical Geography Series)
18 min.; also color. *
Various types of map projection: onto cylinder wrapped around globe; onto cone placed on globe; onto flat surface tangent to globe; advantages and limitations of each projection compared with map drawn on globe.

1368. INTRODUCTION TO OPTICS (MN 2449a) (1945) (Optical Craftsmanship Series) 17 min. A VI 1 USNavy

Principles of light waves and rays. Refraction and reflection; image formation in relation to concave and convex lenses. Applied to optical instruments.

This is one of a series of fifteen films. The others deal with rough grinding (spherical and flat surfaces); beveling, grooving, rounding; fine grinding and polishing; inspection and production methods.

1369. INTRODUCTION TO OXY-ACETYLENE WELDING (1942) 19 min. A VI 1 JamH

Welder's tools and equipment; importance of welder's job. Correct method of getting flame; three types of flames. Flat ripples made on steel sheets; how to hold torch. Bead is welded, illustrating correct way of handling welding rod. Instructions on how to finish job and put away welding equipment.

1370. INTRODUCTION TO PHYSICS (1949) 10 min.; also color. * C VIII CORONET

Main divisions of physics; basic vocabulary for study of physics; some important concepts of physics illustrated. Importance of physics in understanding everyday problems.

1371. INTRODUCTION TO PREVENTIVE MAINTENANCE (1945) OE (Automobile Operation and Maintenance--461) 12 min. * A VI 1

Importance of preventive maintenance in truck operation; typical prevention maintenance check (clutch pedal, battery, and voltage regulator).

1372. INTRODUCTION TO STUDENT TEACHING (1950) 20 min. * A VI 5 IND

Activities in which student teachers may profitably engage during early weeks of student teacher experience. Importance of becoming acquainted with the school, its personnel, policies and of becoming accustomed to handling routine classroom matters; of becoming familiar with instructional materials; of learning about individual pupils.

1373. INTRODUCTION TO VECTORS, AN--COPLANAR CONCURRENT FORCES (1944) (Engineering--Mechanics--361) 22 min. * D II OE

Meaning of scalar and vector quantities; various methods of vector composition and vector resolution; how vectors may be employed to solve engineering problems.

1374. INTRODUCTIONS (1948) 11 min.; also 35 mm. * A VI 4 InstF

How to meet and introduce people. Typical situations in home, business, school; party and official gatherings depict forms of gracious greetings and conversation.

1375. INVERTEBRATES FROM THE GULF OF MAINE 15 min.; monochrome; silent. * C II IO-R

Reel I: Survey of tidal zone life. Invertebrates representative of beaches, rocky shores, and dock pilings. Tide pool inhabitants: sponges, anemones, worms, sea stars, in their natural environment.

Reel II: Views of animals; high magnification shots of barnacles, showing in detail action of cirri used in feeding; cirral rhythm.

1376. IRON ORE TO MOTIVE POWER (1950) 28 min. A VII FORD

Processes by which iron ore is transformed into automobile engine block; blast furnaces; making of cores and molds in modern foundry; pouring molten metal; cleaning, grinding, machining castings.

1377. IRON-CARBON ALLOYS (1949) 30 min.; color. C VI ASM

Wide use of alloys of iron and carbon in modern life and industry; great variation in properties of different alloys with small changes in carbon content. Effect of carbon in iron. Low, medium and high carbon steels explained. Pure iron being cooled. How iron-carbon equilibrium diagram can be used to explain effect of carbon on properties of iron. Tools of metallurgical research: microscope, recording pyrometer, dilatometer, etc. Formation and transformation of structures which form in iron-carbon alloys when heated and cooled; mechanism of crystallographic changes from one allotropic form of iron to another, explained and demonstrated. Vital importance of alloys of iron and carbon in modern civilization.

1378. IRRIGATION--A BRIEF OUTLINE (1935) 11 min.; silent; also 35 mm. ** D I 1 USDA

How irrigation has made possible cultivation of otherwise arid land; how topographical conditions determine method to be preferred for given area. Types of irrigation systems illustrated; preparation of land; methods of measuring water, irrigating crops and orchards.

1379. IRRIGATION FARMING √ W (1951) 10 min. * D I 1 EBF

Irrigation by furrow and flooding methods; need for irrigation in certain sections of the United States; role of Boulder Dam in utilizing natural sources of water for irrigation.

1380. IRRIGATION IN NEBRASKA (1950) 40 min.; color. * D I 1 UofNeb

Irrigation practices and procedures, based on following principles: dependability of water supply, proper land preparation, use of right crops and best cultural practices, efficient and timely water application, maintenance of soil fertility, and prevention of soil erosion.

1381. ISOLATION TECHNIQUE A II 1 1
(MN 1511x) (1948) USNavy
18 min.
Shows correct procedures, techniques, and presentations used in handling cases requiring isolation in hospitals.

1382. IT TAKES ALL KINDS A VI 4
(Marriage Series) McG-H
20 min.
Dramatization to show that in happy marriage two personalities complement each other; how traits that identify personalities are discovered in moments of stress.

1383. IT'S A DEAL (1950) A VI 1
20 min. ** NYCent
Railroad car loading and platform handling techniques; importance of careful and efficient handling of freight.

1384. IT'S FUN TO READ BOOKS (1951) A IV 5
10 min.; also color. * CORONET
Children in elementary school find that books are used for learning, sharing experiences, reference, pleasure; how to get books from library; how to take care of books.

1385. IT'S MIGHTY CHEAP INSURANCE C VIII
(1952) CalTO
30 min.; color.
Why modern motor car requires modern heavy-duty motor oil; why crankcase drains at 1,000-mile intervals are important to engine life. (Animation).

1386. IT'S MORE THAN HAY (1946) D I 1
24 min.; color. IntHar
Importance of hay in livestock production; old and new methods, including machines, for handling hay.

1387. IT'S TEAMWORK (1950) D I 2
15 min. ** KRAFT
Proper methods of sanitation in dairy plant; how to clean vats, use cleaning powder, protect piping; how to clean short time pasteurizers and sanitary pumps; importance of proper lighting, clean dry floors.

1388. IT'S UP TO YOU√√(4-016) (1945) A II 3a
17 min.; color also. ** CDC-UW
Representative community campaign to control Aedes Aegypti mosquitoes in order to prevent dengue and yellow fever, illustrated. Work of health department and other agencies in planning and executing an antimosquito campaign; protective measures used to free city of A. Aegypti.

1389. IT'S YOUR LIBRARY (1947) A I 2
10 min. * MAHNKE
Library introduced to young child in story of small boy who discovers rich adventurous world in books.

J

1390. JAPANESE BEETLE, THE (1945) D I 4
30 min.; color; silent. * NYSExt
Crop destruction caused by larvae and adult of Japanese beetle; methods of control, emphasizing use and production of spore dust which produces milky disease during grub stage of beetle.

1391. JAVELIN, THE (1947) A V 2
10 min. * UWF
Demonstration of stage catapult throw; preliminary run; concluding stride; throwing stance; throwing and reverse; alternate hand and finger grips; side style and semi-forward facing position; balance of stomach and back muscle tension; proper throwing angle; body and leg coordination drills; flexibility exercises.

1392. JEFFERSON OF MONTICELLO A IX 1
(1948) VaDeptE
18 min.; also color. *
Jefferson at Williamsburg; in House of Burgesses; as governor of Virginia. Monticello; University of Virginia; Ashlawn; Montpelier; Natural Bridge.

1393. JEFFERSON THE ARCHITECT E I
(1950) IntFB
11 min. *
Thomas Jefferson's contributions to post-colonial architecture and design: Monticello, University of Virginia, and State Capitol in Richmond. Manner of living of Jefferson and his friends in Virginia reflected in Monticello. Buildings of Jefferson's design at the University and in Richmond show classical influences on American architecture.

1394. JET PROPULSION (1945) C VIII
15 min.; color. ** GE
Principles, operation and advantages of jet propulsion explained.

1395. JOB DESCRIPTION FROM FILM A VI 1
ANALYSIS AND SIMO CHART PURDUE
(1942)
Projection time as desired (participational; 69 ft.); silent. *
Use of film analysis, simo charts and therbligs to describe job: micromotion-picture of operation of assembling hand-hole cover; same job in slow motion.

1396. JOB EVALUATION √(1951) A VII
(Industrial Organization and Management, Series II) McG-H
10 min.
How management determines requirements,

duties, pay scale of jobs. Work of job analyst; job specifications. Several methods of job rating analyzed. Methods of payment (time payment, incentive payment).

1397. JOB INSTRUCTION FILM: HOW TO PEEL TOMATOES IN CANNING FACTORIES, A (1943) A VI 1 PURDUE
6 min.; silent. *
How film may demonstrate and teach correct way of doing job: operator shown using correct method of peeling tomatoes.

1398. JOCKEY CLUB, THE (1949) A V 2 JocCl
27 min.; color. **
History of Jockey Club; functions and role in American thoroughbred racing; Club's contributions through breeding stock to light horse breeds of America.

1399. JOHN GREENLEAF WHITTIER (1950) A IX 1 EBF
17 min. *
Biography of Whittier, poet and abolitionist; work as student and editor, establishment as writer and advocate of social reforms.

1400. JOHN MARSHALL (1951) A IX 1 EBF
17 min. *
Biography of Marshall, founder of American constitutional law; events which led to his appointment as Chief Justice of Supreme Court.

1401. JOHN MARTIN & SON (1946) D I 2 NatDPC
21 min.
How farm family improved its dairy operation by improving pastures, feeding stock better, and following a program of artificial breeding, so building up and maintaining a good herd.

1402. JOHNNY JONES, HIS HOME AND HIS TOWN (1948) A IX 1 STATE
19 min.
Typical day of typical American boy. Family life, health and nutrition, school, sports, play, hobbies, household chores, part-time work. Traditional Sunday in U.S.A.

1403. JOINING SOLID CONDUCTORS √ (1944) A VI 1 OE
(Electrical Work--Wiring--369)
22 min. *
How to make Western Union, pigtail, plain tap, "wrapped tap" or Britannia, loop tap, and fixture joints; use a blowtorch; flux and solder joints; how to insulate joints.

1404. JOINTING AN EDGE FOR GLUING--INSTALLING KNIVES √ (1944) A VI 1 OE
(Woodworking--Jointer--305)
21 min. *
How to determine when knives are dull; remove dull knives; install sharp knives on cutter head and adjust them for proper cutting; straighten crooked stock; join edges for gluing.

1405. JOINTING EDGES AND END GRAIN 90 DEGREES TO A FACE √ (1944) A VI 1 OE
(Woodworking--Jointer--302)
17 min. *
How to set fence and infeed table to proper height; feed with grain; and joint end grain, to prevent tearing.

1406. JOURNALISM (1940) A VI 5 MAHNKE
11 min. *
Journalism presented from guidance point of view; newspaper as locale. Working conditions of various reporters, i.e. sports, police, political, society; make-up shown and explained. Editorial and column writing. Finance and editorial management. Analysis of qualifications and abilities required in field of journalism.

1407. JOURNEY BACK (EDWARD LUNDQUIST, HEMIPLEGIC) (1949) A II 6 VETS
20 min. **
Rehabilitation of hemiplegic patient; early physical measures, retraining methods (self-care, ambulation), prevocational and avocational guidance, speech retraining, social and economic readjustment. Methods by which carried out; integrated teamwork.

1408. JOURNEY INTO MEDICINE (1947) A VI 3 STATE
39 min.
Professional training of young doctor; experiences which influence his ultimate choice of public health career; scope and thoroughness of training combining study of basic sciences, observation and study of cases, practical experience helping public health authorities check a diptheria epidemic. Importance of prevention and control of epidemics.

1409. JUDGING PERCHERONS (1940) D I 2 PURDUE
18 min. *
Steps and procedures in judging Percheron horses. Observation from distance, close-up, animals still, walking, trotting. Characteristics of stance, carriage, bones, muscularity, size of feet; spirit, knee action, stride. Value of Percherons in farmwork.

1410. JUDY LEARNS ABOUT MILK (1948) A III 3 YAF
10 min.
Story of milk supply (in U.S.A.) as seen by child visiting dairy farm. How cows are fed, cared for, milked; how milk is shipped from farm to dairy plant, pasteurized, bottled, delivered to homes.

1411. JUDY'S SMILE √ √ (1948) A II 2 AVIS
8 min.; color
Judy, a girl of primary school age, learns to take care of her teeth by brushing them properly, observing basic hygiene and safety precau-

tions, and visiting her dentist at least twice a year.

1412. JUMPS AND POLE VAULT (1938) A V 2 EBF
11 min.*
Championship form analyzed in high, broad, and hop-step-jump jumps and pole vault. Stop-slow-motion photography and angle shots facilitate study of techniques displayed.

1413. JUNIOR CITIZEN (1946) A VIII GATE
18 min. *
Development of citizenship in U.S.A. public schools by (1) sharing common understanding; (2) fitting individual into economic life; (3) encouraging conservation of natural resources, and (4) of human resources.

1414. JUNIOR COLLEGE FOR TECHNICAL TRADE (1950) A VI 1 STATE
21 min.
Los Angeles Trade Technical College (Frank Wiggins Trade School); how men and women are trained in industrial, mechanical and business skills. School's origin, purpose, and administration; vocational courses taught; how school relates training to local industrial needs.

1415. JUNIOR PROM (1946) A VI 4 InstF
22 min.
Also color.*
Direct instruction to teenagers in dress, conversation and conduct on "dates". How to extend invitations, present and accept flowers, make introductions, etc.

1416. JUST A FARMER (1946) D I 3 CalTO
28 min.
Since running modern farm requires as much "know how" as any other skilled profession modern farmer must know engineering, marketing, medicine, other skills, as well as agriculture.

1417. JUST YESTERDAY (1942) A IX 1 AllisC
11 min.**
How mechanization has replaced most animal power and much hand power on American farms. Result of mechanization (increased productivity).

K

1418. KEEP UP WITH YOUR STUDIES (1949) A IV 5 CORONET
10 min.; also color. *
Importance of good study habits to completion of daily school assignments; schoolboy follows simple rules that improve study habits.

1419. KEEPING YOUR CAR FIT (1944) A VI 1 OE
(Automobile Operation and Maintenance--488)
12 min.*
Why weekly checkup on tires, battery, engine oil, and radiator is necessary; why car should be lubricated regularly and engine oil and gear lubricants changed; why oil filter element should be replaced regularly; and why the cooling system should be inspected periodically.

1420. KENAI BIG GAME (1946) A V 2 HL
9 min.; also color. *
Hunting big game on the Kenai peninsula, Alaska.

1421. KENTUCKIE RIFLE (1940) A IX 1 BARR
(Pioneer Life Series)
10 min.; also color.
Importance of rifle to pioneer on American frontier; parts of rifle explained as pioneer and son hunt for food. Interdependence of members of pioneer family.

1422. KENTUCKY DAM (1948) D II TVA
21 min.; color. **
Planning and construction of Kentucky Dam in Tennessee Valley Authority; importance to integrated system of flood control, navigation and low cost power development; excavation for cofferdams, quarrying and processing limestone, dredging for sand and gravel, stockpiling concrete ingredients, pouring into forms; removal of trees and brush, use of piling, making earth fill. Relocation of highways and railroads; problems related to bridge relocation or raising.

1423. KENTUCKY PIONEERS √ (1941) A IX 1 EBF
11 min.*
Two pioneer families on difficult and dangerous Wilderness Road to Kentucky frontier fort of Harrod's Station. Hardships overcome by courage and faith. Weaving, soap-making, cooking, candle-making, carpentry, cabin construction, schooling, square dancing.

1424. KERATOPLASTY (No. 112a) (1944) A II 1 q DG
18 min.; color; silent.**
Square transplant technique; use of keratoplastotome or double bladed knife. (Dr. Ramon Castroviejo).

1425. KERATOPLASTY (No. 112b) (1945) A II 1 q DG
17 min.; color; silent.**
Circular transplant technique, demonstrating successful corneal graft; resultant improved vision. (Dr. Ramon Castroviejo).

1426. KIDNEYS, URETERS AND BLADDER (1947) C II BRAY
11 min.*
Human urinary system: important anatomical features of kidneys, ureters and urinary bladder; functioning relationships of constituent parts of system; process of urine formation and elimination of waste matter.

1427. KILL THE LOUSE√√(1947) A II 1r
8 min.; color only. I. I-A.A.
The louse, carrier of typhus; how to eradicate (use of DDT).

1428. KILLERS (1932) C II
(Battle for Life Series) TFC
9 min.*
Structure, special adaptations, food-getting and defense mechanisms of the praying mantis, hunting wasp, cricket, spider and scorpion as they devour each other and other insects in their search for food.

1429. KILLING WEEDS WITH 2, 4-D D I 1
(1949) USDA
16 min.; color.**
How to use 2, 4-D (chemical weed killer) safely and effectively on wheat, rice, corn and other crops. Good mixtures explained; spraying techniques illustrated. Cautions against use of 2, 4-D in gardens.

1430. KING COTTON (1940) D I 1
20 min.** GenM
Eli Whitney; invention of cotton gin; improvements in growing and processing. Industrial use of cotton in cloth and in manufacture of lacquer, upholstery, tires, plastics and road-building.

1431. KING CRAB, LIMULUS, THE C II
15 min.; monochrome; silent.* IO-R
External morphology; locomotor and respiratory movements of king crab. Details of dorsal and ventral surfaces; various appendages and gill books. Mass of eggs shown, surrounded by newly hatched larvae; larva in its egg capsule just before hatching. Swimming activities of young king crabs.

1432. KING OF THE FIBRES (1948) D I 1
21 min.; color.** IntHar
How cotton production is mechanized; implements used in plowing, hill planting, cultivating; mechanical picker; transportation of cotton to gin; baling. Scenes of home life of delta plantation worker; how mechanization helps raise standards of living.

1433. KING OF THE SOFT D I 5
WOODS (1949) USDA
15 min.; also color. **
Efforts to protect sugar pine forests of California and Oregon from pine blister rust. Importance of these forests to logging and milling industries. Work of eradicating wild currant and gooseberry bushes (hosts to disease); camp life of workers, logging, etc.

1434. KING'S OTHER LIFE, A VII
THE (1946) BEMIS
20 min.; color.
Planting and harvesting of cotton; manufacturing processes in producing cotton cloth bags; reuse value.

1435. KNIFECRAFT (1948) A VI
11 min.; also color.* BSA
In preparing for and whittling a doll lamp, an expert illustrates proper care and handling of pocketknife. Safety precautions stressed.

1436. KNIGHTS ON THE A II 7d
HIGHWAY (1938) JamH
9 min.
Visual principles which apply at night. Six most important rules for after dark highway safety, illustrated and summarized.

1437. KNOW FOR SURE√√(1942) A II 1d
22 min.; also 35mm.** USPHS
Physician's experiences with syphilis; sources of infection, early symptoms, diagnosis, clinical treatment, prevention; quacks.

1438. KNOW YOUR CAR (1944) A VI 1
(Automobile Operation and OE
Maintenance--486)
15 min.*
Construction of car chassis; how engine converts gasoline into power; function of clutch, transmission, and rear axle; how brakes stop car, electrical and cooling systems function; what telltale gages on instrument panel indicate.

1439. KNOW YOUR LIBRARY (1946) A I 2
10 min.; also color.* CORONET
How to use library intelligently to implement study: card catalogue, arrangement of books on shelves, vertical file, guides, reference books explained.

1440. KNOW THE EGGS YOU BUY D I 2
(1949) USDA
5 min.**
Egg grading plant; candling, packing; government grade labelling. Consumer shown how to recognize grades and buy according to intended use.

L

1441. LABOR SAVING ON YOUR D I 2
DAIRY FARM MIF
15 min.**
Remodeling of dairy farm: stanchion barn to pen stable and pipeline milker. Changes required in equipment, buildings, and management; advantages of pen stabling; machine handling of silage and manure with small equipment investment.

1442. LABORATORY CONTROL IN A II 3 a
MILK SANITATION (M51a) CDC
(1951)
9 min.**
Methods of controlling milk sanitation practices through sampling, laboratory examination, and interpretation of laboratory results.

1443. LABORATORY DIAGNOSIS OF DIPHTHERIA (1950) (4.008.0, 1,2; 4.106.0) 16,11,13,12 min.** A II 1d CDC-UWF

Part I. Microscopic Study and Isolation of C. diphtheriae.--Collection and treatment of initial cultures; isolation of pure cultures. Importance of laboratory diagnosis of diphtheria in substantiating physician's diagnosis and in control of disease.
Part II. Determination of Types of C. diphtheriae.--Various procedures used in determining cultural types of C. diphtheriae. Methods shown: (1) observing colony formations on chocolate-tellurite plates; (2) pellicle formation on broth; (3) fermentation of carbohydrates; and (4) production of soluble hemolysins in broth.
Part III. Testing for Virulence of C. diphtheriae in Animals.--How virulence of pure cultures of C. diphtheriae may be determined by animal inoculation; by determining their ability to produce diphtheria toxin. How, by preparing pure, 48-hour, sugar-free broth culture of organisms morphologically resembling C. diphtheriae and injecting it into rabbit, guinea pig, or chicken along with suitable control injections, this property may be demonstrated.
Part IV. √ The In Vitro Virulence Test for C. diphtheriae.--How to determine virulence of C. diphtheriae by means of inexpensive in vitro test, without aid of animals.

1444. LABORATORY DIAGNOSIS OF INFLUENZA, THE (4-101) (1950) 13 min.** A II 1 d CDC

Procedure in laboratory diagnosis of influenza. Reasons and techniques for collection of specimens from patient, isolation of virus, determining presence and quantity of virus, identification of virus strains, establishment of antibody content from acute and convalescent blood specimens.

1445. LABORATORY DIAGNOSIS OF RABIES (4-111) √ (1950) 6 min.** A II 1s CDC-UWF

Principles, procedures, techniques for accurate laboratory diagnosis of rabies. How brain of dog suspected of rabies is examined; Ammon's horn Negri bodies: how identified; their significance.

1446. LABORATORY DIAGNOSIS OF TUBERCULOSIS √ (1950) (4-089.1,2,4) 14,16,14 min.** A II 1d CDC-UWF

Part I. How to prepare Lowenstein-Jensen-Holm egg-potato-flour medium for diagnostic cultivation of tubercle bacilli. Demonstration of tubercle bacilli recovered from suspected cases, only sure means of detecting tuberculosis. Advantages of the modified Lowenstein medium: Lowenstein-Jensen-Holm egg-potato-flour medium, satisfactory for diagnostic cultivation of tubercle bacilli; can be prepared by small laboratories; inhibits growth of contaminating organisms; supports avian, bovine, and human strains of tubercle bacilli; facilitates tubercle bacillus identification by colony appearance. Ingredients and procedure for preparing the medium; tubing, inspissating, testing, storing. Characteristic appearance of colonies in medium.
Part II. Preparation of Sputum Specimens. Technique for preparation of sputum specimens; how smeared, stained, microscopically examined, prepared for cultivation by digestion, homogenization, neutralization, and concentration. Inoculation of specimens: Each having negative miscroscopy report is aspirated (undiluted) with sterile Pasteur pipette; inoculated with undulating serpentine motion onto slants of four tubes of culture medium. Specimens having miscroscopy reports positive are inoculated without dilution onto two culture medium slants and with dilution onto two additional ones. Incubation and examination of cultures: After four tubes are inoculated with each specimen, the tubes are incubated over night in slant rack; then placed in incubator; examined for colony growth after 2 weeks and every week thereafter for 6 weeks; if no colony growth appears in that time reported negative.
Part IV. Typing of Tubercle Bacilli by Animal Inoculation. Technique for typing tuberculosis cultures by animal inoculation. How cultures are standardized and diluted to insure validity of results. Types of tubercle baccilli identified by colony appearance; in cases of doubt, final typing through inoculation of laboratory animals. Preparation of cultures for typing by animal inoculation: selected colonies ground thoroughly in sterile saline in sterile test tube to form suspension; allowed to settle for 30 minutes; homogeneous supernatant fluid transferred to second sterile test tube for standardization. How standardization is accomplished. Four dilutions prepared. One-tenth ml. of lowest concentration inoculated onto each of 4 tubes of modified Lowenstein's medium to check continued viability of organisms, to test for contamination and correlate colony characteristics with animal inoculation results. Typing of cultures by animal inoculation: carried out according to chart or manual: for each apparent culture type until autopsy. Technique of autopsy shown and criteria for judging type from autopsy results given.

1447. LADDERS, SCAFFOLDS AND FLOOR OPENINGS (1948) 9 min.; color. ** A II 7c AETNA

Hazards of faulty or poorly made equipment shown; need for safe working habits in con-

struction field stressed; proper construction of ladders, scaffolds and guards for floor openings illustrated; how to use and maintain such equipment.

1448. LADY OF THE LAKE, THE: BACKGROUND FOR LITERATURE (1949) — A IV 2 CORONET
10 min.; also color. *
Scenes in Scotland associated with narrative poem, The Lady of the Lake, and life and times of Sir Walter Scott.

1449. LAKES AND STREAMS OF MINNESOTA (1949) — A II 3a UMINN
22 min.; color.
Three large rivers have their source in Minnesota; scenes of lakes, streams, and rivers. How water sustains a high standard of living. Polluted water: sewage and industrial wastes poured into rivers and lakes. Results. How several cities eliminated such procedures. Sewage disposal plants, holding lagoons, settling tanks, and multiple filtration systems, some of the methods used to stop pollution of water.

1450. LAND MUST EAT, THE √√ (1947) — D I 1 I.I-A.A.
9 min.; color.
Necessity of replenishing depleted soil; use of barnyard manure, compost, green manure crops and crop rotation.

1451. LANGMUIR ON SURFACE CHEMISTRY, DR. (1940) — C IV BF
30 min. *
40 min., version for special study.
Dr. Irving Langmuir, Nobel prize winner, performs and discusses experiments in surface chemistry.

1452. LANGUAGE OF DRAWING, THE √ Series I (1948) — D II McG-H
(Mechanical Drawing Series)
10 min.
Mechanical drawing shown to be the common language of modern production.

1453. LANGUAGE OF GRAPHS, THE (1947) — C VII 4 CORONET
15 min.; also color. *
To illustrate how clearly graphs can sum up a situation this film shows boys and girls considering financial and circulation problems of their school newspaper with bar, line, circle, and equation graphs to picture relationships and make comparisons.

1454. LANGUAGE OF MATHEMATICS (1950) — C VII CORONET
10 min.; also color. *
Relation of mathematics to society; symbols of mathematics; review of use of graphs, dimensions, numerical operations.

1455. LAST TEN FEET, THE (1949) — A VII AmPetrol
20 min. **
How petroleum is located, taken from ground, refined, transported, delivered to consumer as gasoline through last ten feet of hose connected to service station pumps or tank trucks of hundreds of thousands of dealers and distributors in the United States.

1456. LATERAL NECK (1941) — A II 1 a BURKE
(Surgical Anatomy Series)
15 min.; color; silent. *
Exposure of deep cervical fascia, external jugular vein and superficial cervical nerves. Dissection carries through muscles, demonstrating all anatomy adjacent, including common carotid artery, vagus nerve, recurrent laryngeal nerve, etc., in relation to the thyroid gland and each other. Dissection on unembalmed cadavers shows natural colors and condition of tissues involved.

1457. LATITUDE AND LONGITUDE √√ (1946) — C V UWF-GB
10 min.; also color. *
Animated-diagram technique and transparent globe used to explain angles in interior of earth. The subject is related to fixing position of a ship. Latitude explained as angular distance from equator, as distinct from line of latitude, which joins all places having same latitude. Need for measurement in different direction demonstrated; longitude explained as angular distance from the Greenwich Meridian, while line of longitude joins all places which have the same longitude. The ship is 20 S. and 30 W.; short review of what is meant by this: the position is fixed on globe at intersection of parallel of 20 S. with meridian of 30 W.

1458. LAUNDERING AND DRY CLEANING (1946) — A VI 5 MAHNKE
11 min. *
Trip through laundry and dry cleaning plant. Students learning machine operation, studying textiles, laundry chemistry, salesmanship, accounting and management. Jobs in dry cleaning: spotter, dyer, foreman and manager.

1459. LAW AND SOCIAL CONTROLS (1949) — A VIII CORONET
10 min.; also color. *
Three broad areas of social control, established: customs, moral codes, laws. Some levels of law explained: local, state, national etc.

1460. LAYING OFF THE BOUNDARY, STIFFENERS, WATER LINES AND BUTTOCK LINES (1942) — A VI 1 OE
(Shipbuilding--Shipfitting--30)
18 min. *
Work of shipfitter in laying off transverse water-tight bulkhead; correct method of using template mold for laying off both port and

starboard sides, checking location and squareness of water and buttock lines; marking layed off bulkhead.

1461. LAYING OUT AND FORMING PLYWOOD √ (1944) A VI 1 OE
(Aircraft Work--Wood Fabrication--285)
21 min. *
How to lay out plywood using blueprints and templates; form plywood in press; reinforce plywood; apply glue and varnish.

1462. LAYING OUT AND INSTALLING COMPARTMENT FIXTURES (1944) A VI 1 OE
(Shipbuilding--Marine Electricity--114)
12 min. *
How to locate installations on plan-view blueprint which gives no dimensions; how to lay out ceiling fixtures and studs; burn hole for passage of cable; to install ceiling fixtures.

1463. LAYING OUT AND INSTALLING HANGERS (1944) A VI 1 OE
(Shipbuilding--Pipefitting--120)
19 min. *
Principal types of hangers used in marine pipefitting: stool, angle iron bracket, strap, rod, and saddle; how to install, determine correct length for hanger legs; measure and cut hanger legs.

1464. LAYING OUT AND INSTALLING KICKPIPES AND STUFFING TUBES (1944) A VI 1 OE
(Shipbuilding--Marine Electricity--110)
16 min. *
How to distinguish three types of kickpipes; how to lay out penetration areas; lay out and install single kickpipes; lay out stuffing tube areas.

1465. LAYING OUT AND INSTALLING MAIN WIREWAY (1944) A VI 1 OE
(Shipbuilding--Marine Electricity--111)
21 min. *
How to lay out and install raceways and wireways; calculate width of hanger to be used; use 8:1 radius rule; determine spacing of hangers; overcome obstacles in route of raceway.

1466. LAYING OUT AND INSTALLING STERN TUBE, TAIL SHAFT, AND PROPELLER (1944) A VI 1 OE
(Shipbuilding--Marine Machinery Installation--100, 101, 341, 342)
22, 15, 32, 29, 37 min. *
Part I. Running a Temporary Line. How propeller post is prepared for running temporary line; how targets are installed at fore-and-aft end of line; how to adjust line to center of bulkhead openings; to eliminate sag when line has been run; how temporary line is checked for proper position.
Part II: Laying Off Bulkheads. How to measure on bulkheads from temporary line; and establish center of bulkhead openings after line is taken out; purpose of laying off bulkheads; when to run permanent line.
Part III. How to run permanent line; to establish reference marks on bulkhead, propeller post, and double ring; to install and adjust boring bar; to rough-bore and finish-bore propeller post and various bulkheads to specifications.
Part IV: How stern tube is installed and made secure; how tail shaft is installed; how propeller is swung into position and lined up; how fairwater cap and rope guard are installed and tail-shaft assembly secured for launching.

1467. LAYING OUT, DRILLING, AND TAPPING FLANGES ON SEA CHEST (1943) A VI 1 OE
(Shipbuilding--Marine Machinery Installation--98)
19 min. *
Component parts of a sea chest; how sea chests function; how flanges are prepared for valve installation; how locations of flanges are checked; how flanges are leveled to make metal-to-metal contact with valve bearing surfaces; how stud hole centers are laid out, and stud holes drilled and tapped.

1468. LAYING OUT SMALL CASTINGS (1942) A VI 1 OE
(Machine Shop Work--Bench Work--40)
16 min. *
Methods and procedures used when laying out holes for drilling; how to locate a reference point; use of hermaphrodite calipers, combination square, surface gage.

1469. LAYING THE ATLANTIC CABLE (1941) B VI 3 KB
11 min. *
Scenes aboard cable layer; depth sounding explained; how telegraphic cable is constructed and laid.

1470. LEADERS FOR LEISURE (1949) A VI 4
21 min.; color. * AI
Designed to influence community attitudes and understanding in favor of professionally trained recreation leadership and leaders, dispelling misconception that providing facilities suffices to assure success of recreation program (Sequel to Playtown).

1471. LEARN TO ARGUE EFFECTIVELY (1951) A IV 4 CORONET
10 min.; also color. *
Role of persuasive argument in democratic living; purposeful and irrelevant arguments contrasted.

1472. LEARN TO SWIM (1938) A V 2
20 min.; also 35 mm. * USDA
Swimming taught by confidence method; basic strokes, including the breast stroke, side stroke, back stroke and crawl, explained and demonstrated.

1473. LEARNING ABOUT THE PAST (1951) A IX 1 IND
10 min. *

How archeologists work to reveal story of prehistoric past, illustrated by activities at a Mounds Indian "dig" in southern Indiana. Work in field; sorting and cataloguing artifacts; construction of Indian stockade. Dioramas of Indian cultures.

1474. LEARNING AND GROWTH (1934) A II 4c
11 min. * EBF
Possibilities and limitations in training infants twenty-four to forty-eight weeks of age; principles of learning process.

1475. LEARNING DEMOCRACY (1949) A VIII
20 min.; also color. * BAILEY
How typical public schools and communities (U.S.A.) are serving as proving grounds for democracy by providing opportunities for both young people and adults to participate in special projects involving realistic democratic procedures. Effective citizenship education in democracy, more than learning facts from textbooks. Young people shown presiding at group meetings, serving as student government representatives, participating in group discussion, serving on committees, voting, caring for public property, and working democratically with adults on common problems.

1476. LEARNING FROM CLASS DISCUSSION (1950) A IV 5 CORONET
10 min.; also color. *
Rules for stimulating discussion: prepare in advance, take part, keep an open mind. Importance of properly phrased questions.

1477. LEARNING THROUGH COOPERATIVE PLANNING (1948) A VI 4 TCCU
20 min. *
How resourceful elementary school leads children into cooperative planning. Project of concern and interest to them and community exploited to provide real experiences in such planning. Examples of democratic guidance.

1478. LEARNING TO UNDERSTAND CHILDREN √ (1948) A VI 3 McG-H
(Teacher Education Series)
21, 23 min.
Part I. A Diagnostic Approach. Case study of emotionally and socially maladjusted schoolgirl. Teacher's diagnostic techniques: observation of child's behavior, study of previous records, personal interviews, home visits; formulation of hypothesis for remedial measures.
Part II. A Remedial Program. Continuation of case study of maladjusted schoolgirl, developing teacher's plan for remedial action; girl's interest in art used to increase her self-confidence and interest in school work, and to win recognition and acceptance among schoolmates.

1479. LEASE ON LIFE (1945) A II 1 p
20 min.; also 35 mm. ** NatTbA
Importance of physical check-ups and various preventive practices used in tuberculosis control.

1480. LEAVES (1947) C III
11 min. * EBF
How leaves manufacture food for plants; relation of leaves to roots, stems, flowers. Photosynthesis. Cinemicrography shows leaf cells at work. Time-lapse photography shows opening of horse chestnut bud and growing of a nettle twig.

1481. LECTURE ON THE SPIROCHETES, A (1950) A II 1 c SAB
32 min.; silent. *
Reel I. Photomicrographs of parasitic and pathogenic spirochetes and spirilla: five genera of spirochetes. Optical principles of dark field microscope and its manipulation.
Reel II. Abscess in guinea pig inoculated with exudate from Vincent's infection; various organisms, emphasis on treponema microdentium. T. microdentium from cultures also shown. Chancre on testicle of rabbit; T. pallidum demonstrated in dark field preparations from the chancre and also from a penile chancre in man.
Reel III. Dark field preparations from cultures showing morphology and motion of leptospira. Spirochete-like artifacts which may be mistaken for leptospira. Spirillum minus (Dr. Theodor Roseburg) from infected mouse illustrates morphology and movement of this type of organism. [A synchronized text has been prepared to be read aloud by the operator during the projection of the film.]

1482. LEFT LOWER LOBECTOMY FOR BRONCHIECTASIS (No. 23) (1945) A II 1 q DG
24 min.; color; silent. **
Operation depicted. Successful results shown. (Dr. Richard H. Overholt and associates)

1483. LEGEND OF THE PIED PIPER, THE (1949) A IV 2 CORONET
10 min.; also color. *
Puppets enact classic legend.

1484. LENSES (1951) C VIII
(Light Series) UWF-GB
10 min. *
Uses of diverging and converging lenses to refract light; prisms; formation and characteristics of images.

1485. LEST WE FORGET (1940) A IX 1
10 min. ** GenM
Progress of family automobile from "horseless carriage" days to recent times. Street scenes in various American cities when automobiles were rarity; first automobile show in New York, in 1900; annual reliability tours that aroused nationwide interest; daredevil road races between cars with temperaments, with side cranks, no windshields, headlamps and tires "extra". [Drawn from libraries of early motion pictures.]

1486. LET'S BE SAFE AT HOME (1948) A II 7a Porta
10 min.; color.
Typical home accidents enacted to emphasize importance to safety of alertness, good manners and deliberation. Featured dangers are cluttered floors, haste on stairways, spilling of liquids, electrical hazards, play with firearms.

1487. LET'S COUNT (1948) C VII 1
10 min.; also color. * CORONET
Basic elements of learning to count; familiar childhood experiences related to basic concepts of grouping, order, symbols, as two primary school children learn to count.

1488. LET'S GO TROOP CAMPING (1952) A I 5 e GScout
20 min. * (1)
Step-by-step preparations for camping by Girl Scout troop using patrol system; importance of planning, need for developing skills.

1489. LET'S HAVE FEWER COLDS (1950) A II 2 CORONET
10 min.; also color. *
How avoiding contact with people having colds, avoiding chilling and overheating, and establishing good health helps to prevent colds. Physiology of nose and throat.

1490. LET'S KEEP THE KILLER DOWN √ W (1946) A II 1 d NMP
(Health Series)
10 min.; also 35 mm. **
Importance of prompt diagnosis in cases of diphtheria. How culture is tested to establish diagnosis. Proper care of patients; measures to protect others from disease. How antitoxin and toxoid are prepared and administered. Schick test. Importance of immunization to maintain lowered rate of incidence.

1491. LET'S LOOK AT MAPS (1949) C V
11 min.; also color. * VaDeptE
Introduction to maps. For young children.

1492. LET'S MAKE A MEAL IN TWENTY MINUTES A III 3 S-M
(Homemakers Series--Kitchen Pictures)
6 min.
Daughter learns to make a satisfying attractive meal in twenty minutes, as mother shows her short cuts and the importance of planning ahead of time.

1493. LET'S MAKE A PIE (1950) A III 3 S-M
(Homemakers Series--Kitchen Pictures)
6 min.
Mother shows daughter how to make a pie with economy of labor and worry.

1494. LET'S MAKE A SALAD (1950) A III 3 S-M
(Homemakers Series--Kitchen Pictures)
6 min.
Daughter in kitchen learns from mother how to put together an attractive, easy-to-make salad.

1495. LET'S MAKE A SANDWICH A III 3 S-M
(Homemakers Series--Kitchen Pictures)
6 min.
Mother shows daughter how to make different kinds of sandwiches for "party treats."

1496. LET'S OPEN OUR EYES (1938) A II 1 p
10 min.; also 35 mm. * NMP
Importance of taking case of syphilis at once to competent doctor or clinic to combat disease and render its victim non-infectious; and to locate all contacts in order to break another link in chain of infection. Taking fluid from chancre on lip, shown; appearance of spirochetes under darkfield. Administration of arsphenamine and bismuth. Importance of routine Wassermann tests in all physical examinations, particularly in pregnancy. Complications of syphilis such as blindness of children, heart disease, deaths of babies, insanity and paralysis.

1497. LET'S PAINT WITH WATER COLOR (1951) E VIII CORONET
10 min.; also color. *
Fundamentals of water color technique; school children, in painting scrapbooks, demonstrate three methods of water color painting.

1498. LET'S PLAY FAIR (1949) A VI 4
10 min.; also color. * CORONET
Basic elements of fair play (sharing, taking turns, obeying rules).

1499. LET'S PLAY WITH CLAY: ANIMALS (1949) A V 1 YAF
10 min. *
An introductory film on clay work, specifically designed for the younger age level. How clay is worked with the hands, either pressed or rolled into the simple shapes of some familiar animals.

1500. LET'S PLAY WITH CLAY: BOWLS (1949) A V 1 YAF
10 min. *
An introductory film on clay work. How a simple flat circle of clay is formed by pressing and pinching; how this basic form can be manipulated to make a saucer, cup, pitcher, bowl, or vase.

1501. LET'S PRONOUNCE WELL (1952) A IV 1
11 min.; also color. * CORONET
Primary school boy, lacking good speech habits, learns that good pronunciation depends on being clear, natural, and accurate in word usage.

1502. LET'S SHARE WITH OTHERS (1950) A VI 4 CORONET
10 min.; also color. *

Primary school children, in operating lemonade stand, learn elementary principles of sharing.

1503. LET'S VISIT A POULTRY FARM (1947) — D I 2 — CORONET
10 min.; also color. *
Feeding chickens, gathering and packaging eggs. White Leghorns, Rhode Island Reds, ducks and turkeys. The hatchery.

1504. LETTER FROM AN AMERICAN SCHOOLBOY (1951) — A IX 1 — STATE
30 min.
Life of American teen-age boy, described in letter to foreign student; home and family; small New England town life; school studies and sports; work, duties and responsibilities.

1505. LETTER TO GRANDMOTHER (1942) — A VIII — CORONET
18 min. *
Processes through which a letter passes in the United States mails from writer to recipient; also how a package is handled by parcel post.

1506. LEUKORRHEA, ITS DIAGNOSIS AND TREATMENT (1947) — A II 1c — CIBA
37-1/2 min.; color. **
Infectious leukorrhea illustrated: cases of mixed infection (anaerobic streptococci and colon bacilli) and infections with gonococci, pneumococci, pin worm, trichophyton, paramecium, monilia, and trichomona. Noninfectious leukorrhea shown: cases due to foreign body irritation, senile vaginitis, endocrine and ovulatory distrubances. Important points in each case history mentioned; preparation of patients, procedures necessary for laboratory diagnosis, management of each case.

1507. LEVEL FARMING (1944) — D I 1 — Case
10 min.; color. **
Advantages of contour farming; proper methods of such farming, to save power, increase yield, conserve soil, water, seed and fertilizer.

1508. LEVELING FOR TOPOGRAPHIC MAPPING (1951) — D II — INT-GeoS
20 min.; color. **
Leveling (in map making) defined; its importance. How land elevations and sea levels are determined. Prism model level explained; its use demonstrated. Bench marks. A surveying party at work.

1509. LIBRARIAN, THE (1947) — A VI 5 — MAHNKE
11 min. *
Five general classifications of librarians: cataloguer, reference, circulation, juvenile and librarian in institutions of higher learning. Many librarians are specialists in law, science, adult education, film, recordings and music.

1510. LIBRARY OF CONGRESS (1945) — A I 2 — STATE
20 min.
Activities of national library at Washington, D.C.; extent of collection; special departments; services to general public, other libraries, special researchers. Architecture and facilities of buildings.

1511. LIBRARY ORGANIZATION (1951) — A I 2 — CORONET
10 min.; also color. *
How to use a library; card cataloging system and Dewey decimal system in use in typical library.

1512. LIFE ALONG THE WATERWAYS (1952) — C II — EBF
11 min.; color. *
A waterway, from brook to river; plant and animal life which it supports.

1513. LIFE BEGINS (1934) — A II 4c — EBF
57 min. *
Condensation of individual films on child development; Arnold Gesell's work at Yale Clinic of Child Development; need for infant hygiene; many phases of infant behavior.

1514. LIFE CYCLE OF A FLY (1948) (Zoology Series) — C II — UWF-GB
10 min. *
Life cycle of blue bottle fly. Close-ups and time lapse photography present egglaying, hatching, feeding and growth of larvae; how they emerge from pupal case, burrow to earth's surface; reaction to light, expansion of wings.

1515. LIFE CYCLE OF A FROG (1948) (Zoology Series) — C II — UWF-GB
10 min. *
Examination of male and female frogs before breeding; egg fertilized; development of embryo shown by time-lapse photography. Organs of tadpole (gills, gill covers, limbs) seen at different growth stages. Phases of metamorphosis.

1516. LIFE CYCLE OF A PLANT (1950) (Botany Series) — C III — UWF-GB
10 min. *
Plant growth, seed to mature plant to seed; processes of germination, growth above and below soil, seed development, pollination and fertilization.

1517. LIFE CYCLE OF A TROUT (1948) (Zoology Series) — C II — UWF-GB
10 min. *
Fertilization of trout egg and formation of germinal disc and yolk sac; formation of body parts shown in timelapse photography; hatching; absorption of yolk sac and growth of young trout.

1518. LIFE CYCLE OF DIPHYLLOBOTHRIUM LATUM (4-043). (1950) — A II 1r — CDC-UWF
17 min. **
Life cycle of broad tapeworm of man [depicted by means of cinematography and motion photomicrography of living materials, and by animation]. Egg, egg development, egg hatching; movements of coracidium; cilia, hooks, and

flame cells; infection of copepods (Diaptomus species) by coracidia; development of onchosphere into procercoid in body spaces of copepod; infection of fish by copepods; location and recovery of plerocercoid in muscles of fish host (species of pike); study of plerocercoid. Ingestion by man of plerocercoid in uncooked infected fish; growth of adult worm in intestine. Adult worm; regions of strobila: scolex and proglottids.

1519. LIFE CYCLE OF THE DUCK (1949) C II BAILEY
10 min.; also color; and silent. *
Study of heredity and environment, based on life cycle of Muscovy duck (Cairina maschata Linne): characteristics of newly hatched, half-grown, adult birds; how this species retains hereditary traits through controlled breeding; principles of heredity and hereditary units.

1520. LIFE CYCLE OF THE MOSQUITO, THE (1947) C II YAF
12 min. *
Life cycle, structure, feeding habits of the mosquito. Anatomy of mosquito egg, larvae and pupal cases. Animation used.

1521. LIFE CYCLE OF TRICHINELLA SPIRALIS, THE A II 1c SAB
10 min.; color; silent. *
Life cycle of Trichinella spiralis demonstrated by feeding raw infected sausage to white rats. Infected rats killed three days after eating infected meat. Autopsying of rat shown.

1522. LIFE HANGS BY A THREAD (1950) A V I BF
18 min.; color. *
How string marionettes are made and operated by experts. History of use of marionettes in ceremonies for past 1,000 years; recent revival as hobby. While clown dances and blows up rubber balloon, stage construction and work of operator and his assistants are explained. Construction and painting of papier-mache head for clown marionette; cutting and assembling of body, making of costume, attachment of strings to marionette and control bars. Completed clown manipulated as basic movements are explained.

1523. LIFE HISTORY OF ENDAMOEBA HISTOLYTICA, THE (1934) A II 1r MAYO
10 min.; silent. **
Motile form (trophozoites) of E. histolytica lives in large bowel of man; photomicrograph of motile amoebae in wet preparation. Morphology of amoebae from this source compared with that of amoebae from laboratory cultures. Development of E. histolytica described. Cystic form; how acted upon by digestive juices, liberating new generation of parasite in new host.

1524. LIFE HISTORY OF THE ROCKY MOUNTAIN WOOD TICK, THE (1939) A II 1 r HamM
40 min.; colored; silent.
Nature of Rocky Mountain spotted fever; life cycle of the tick, vector of this fever and tularemia, Colorado tick fever, American Q fever, and tick paralysis. Type of vegetation wherein ticks are commonly found; characteristic position of ticks on vegetation, manner of transfer to animal host; wild and domestic mammals which serve as hosts for blood meals necessary for development of ticks; morphological details and color patterns. Male and female specimens contrasted. Generating of eggs to adults followed through four seasons. Factors affecting survival of species.

1525. LIFE IN A DROP OF WATER (1947) C II CORONET
10 min.; also color. *
Amoeba, spirogyra, paramecium carrying on life processes of nutrition, locomotion, reaction, reproduction, shown in microphotography.

1526. LIFE IN A POND (1950) C II
10 min.; also color. * CORONET
Typical fresh-water pond as home of self-sustaining group of plants and animals: shoreward, floating and submerged plants; water fleas, beetles, insect larvae, dragon fly nymphs, minnows.

1527. LIFE IN AN AQUARIUM (1950) C II
11 min. * YAF
Setting up classroom aquarium stocked with goldfish, snails and tadpoles. How fish breathe under water; animals' need for oxygen. Difference between lungs and gills; how fish use tails and fins for locomotion; stages of development of frog from tadpole. How snails move about and protect themselves.

1528. LIFE IN OLD LOUISIANA √ (1941) A IX 1 EBF
11 min. *
Dramatized story of family life in New Orleans (c. 1830). Customs, manners. Importance of Mississippi River; packet boats. The delta country. Cotton and cane plantations; slavery; education; religion; architecture, music; "code duello."

1529. LIFE IN THE ANTARCTIC (1941) A IX 2
11 min. * KB
Winter and summer on uninhabited Antarctic Continent where there are no animals except those that migrate in winter, or find homes in warmer waters of surrounding ocean. Whaling industry; Norwegian whaling station on South Georgia.

1530. LIFE IN THE CENTRAL VALLEY OF CALIFORNIA (1949) A IX 1 CORONET
10 min.; also color. *
Economic development of the Great Valley of Central California; rivers, irrigation systems, crops, cities, topography; how land and climate helped shape occupations of people.

1531. LIFE INSURANCE OCCUPATIONS (1948) — A VI 5 MAHNKE
11 min. *
Home office of life insurance company. An insurance policy followed through various departments, i.e., office procedure. Secretaries, typists, clerks, machine operators and accountants, at work. Executive positions; actuary, lay underwriter, claims manager, doctor and lawyer.

1532. LIFE OF A PLANT (1950) — C III EBF
11 min.; color. *
Life cycle of typical flowering plant, the pea. Roles of root, stem, leaf, flower, fruit, seed (time-lapse photography, animated drawings).

1533. LIFE OF HENRIETTA SZOLD √√ (1944) — A I 5d HAD
30 min. *
Life of Henrietta Szold, founder of Hadassah. Development of organization from 1909 to present importance: largest medical and social welfare agency operating on American lines in Israel.

1534. LIFE OF THOMAS A. EDISON (1931) — A IX 1 GE
10 min.; also 35 mm. **
Highlights in life of inventor; a newsboy; telegraph operator; first experiments; triumphs and failures; deafness; his genius; the incandescent lamp. Edison himself appears in some scenes.

1535. LIFE STREAM OF THE CITY (1946) — E VI GE
15 min.; color. **
Advantages of modern urban transit systems; how planned.

1536. LIFE WITH BABY (U62) (1949) — A II 4c MTFF
18 min. *
Observing children of different ages through a one-way vision dome; the film follows reactions of younger babies, recording their responses to standard tests, thus revealing patterns of normal child development.

1537. LIFE WITH GRANDPA (1949) — A IX 1 MTFF
17 min. *
As more people reach old age, medical science faces increasing problems of degenerative disease. Problems of economic and social security, and depressive feeling of loneliness and uselessness. Approaches to solutions suggested.

1538. LIFE WITH JUNIOR (1949) — A II 4c MTFF
18 min. *
A typical day in life of a ten year old; common problems, such as acceptance of new brother, and refusal to eat, etc., pictured in sequences made in cooperation with Child Study Association of America.

1539. LIFELINES (1948) — A II 7e AETNA
10 min.; color. **
Dangers of swimming; safety measures recommended; safety techniques illustrated.

1540. LIGHT AND POWER (1946) (The World Today Series) — C VIII TwC-FF
16 min. *
Development of electric power from discovery of magnetism to use of electricity in releasing atomic energy; how inventions resulting from social needs have in turn influenced society; invention of dynamo, incandescent lamp, telegraph, telephone; experiments with radium; release of atomic energy. Contributions of scientists of many nations; importance of responsibility for constructive use of scientific discoveries.

1541. LIGHT AND SHADOW (1949) — C VIII YAF
11 min. *
Introduction to nature and behavior of light; how light rays are reflected. Terms (luminous, transparent, translucent, opaque) explained.

1542. LIGHT CONTROL THROUGH POLARIZATION (1946) √√ — C VIII POLAROID
18 min.; also color; also 35 mm. **
Theory of light waves; how they act; how action of light waves can be controlled; made to change direction and to focus. Composition of white light; each color has its own wave length. How polarization controls intensity of light. Cross polarization. Use of polarized filters in airplanes and automobiles. Use of polariscope to determine structure of object and strain it will take. How polariscope works.

1543. LIGHT IS WHAT YOU MAKE IT (1946) — C VIII BLBS
10 min.; color.
Importance of light to sight; the footcandle; similarity of eye and camera; natural and artificial light intensities; right and wrong lighting; proper illumination for every task.

1544. LIGHT WAVES AND THEIR USES √√(1937) — C VIII EBF
11 min. *
Principles of reflection and refraction of light: through lenses, from plane, concave, convex mirrors. The human eye, a lense. Use of light waves in minute measurements. Interference, electromagnetic spectrum; polar screens.

1545. LIMESTONE CAVERNS (1943) — C VI CORONET
10 min.; also color. *
Formation of caves and caverns as exemplified in Cave of the Mounds (Wisconsin). Physical and chemical action of water and atmosphere on strata and deposits shown in process. Stalactites, stalagmites, spatter-cones, helictites, colites. Facts about other American caves also presented.

1546. LINCOLN FIELD TRIP √ (1951) — A IX 1 IntFB
11 min. *

Visit to places in Illinois associated with life and history of Abraham Lincoln.

1547. LINEMAN SAFETY TRAINING (1951) A II 7c VaDeptE
43 min.; color. *
Safety precautions lineman should take; transformers, hot-line tools, voltage regulators, fuse disconnects, circuit breakers, capacitors, pole-top resuscitation, explained and equipment demonstrated.

1548. LINES AND ANGLES √√ (1945) C VII 3 KB
(Practical Geometry Series)
12 min. *
Mathematical applications of basic geometry visualized; erection of perpendicular: relationship of perpendicular with ordinary plumb bob, level and square; how angles are formed and measured; relationship of angles to each other and to complete circle.

1549. LISTEN WELL, LEARN WELL (1951) A IV 5 CORONET
11 min.; also color. *
How to notice important sounds; how to keep listening to sounds; how visualizing sounds helps understanding; children listen like "a sponge", "a grasshopper", "a turtle" as they play listening games.

1550. LITERATURE APPRECIATION: ENGLISH LYRICS (1951) A IV 2 CORONET
10 min.; also color. *
Lyrics of Tennyson, Keats, Wordsworth, Shelley, Shakespeare, and other English poets presented against actual scenes as the poets saw them.

1551. LITERATURE APPRECIATION: STORIES (1951) A IV 2 CORONET
11 min.; also color. *
High school boy, in planning marionette show, learns importance of setting, characterization, plot as basic story elements.

1552. LITTLE RED HEN, THE (1950) A IV 2 CORONET
10 min.; also color. *
Classic fable retold (art and live action).

1553. LITTLE RED RIDING HOOD (1950) A IV 2 EBF
11 min.; color. *
Puppets illustrate classic children's story.

1554. LIVE--AND LET LIVE (1947) A II 7d AETNA
10 min.; color. **
Ten leading causes of accidents on highways, demonstrated.

1555. LIVE TEDDY BEARS √√ (1947) C II EBF
11 min. *
Life and habits of Australian koala; in park and in native habitat, Australian bush country. Adaptation to environment, especially in relation to food supply.

1556. LIVER FLUKE IN SHEEP (FASCIOLIASIS) (PMF 5125) (1949) A II 1 s USArmy-P
13 min. **
Life cycle; treatment; basic control factors.

1557. LIVESTOCK COOPERATIVES IN ACTION (1950) D I 3 USDA
15 min.; color. **
How live stock cooperatives began; how they function; how they benefit members.

1558. LIVING AND NON-LIVING THINGS (1951) C II UWF-GB
(Human Biology Series)
10 min. *
Characteristics of life observed in chicken (animal) and runner bean (plant). Animated diagrams show growth processes.

1559. LIVING FOREST, THE (1950) D I 5 EBF
(Forum Edition)
44 min.; color. *
Forest as living community yielding timber, water, beauty; need for wise forest management emphasized.

1560. LIVING IN A METROPOLIS √√ (1949) A IX 1 UWF
20 min. *
New York City, port and gateway to U.S.A.; national and international transportation lines. Metropolitan life, hurried; space in city limited; business, concentrated in great skyscrapers. Wide variety of trades and cultural activities. Population's needs influenced by requirements of living in highly populated commercial area.

1561. LIVING ROCK (1944) D I 1 UofGA
30 min. **
How soil of run-down farm was restored by addition of phosphate and lime to land and growing of legumes. Father in letter to son relates his struggle with the farm, through "depression," drought, too much rain, poor soil, bad crops. What he learned from county agent. Why he terraced, grew legumes and grass (not row) crops. Procedures and equipment for soil restoration.

1562. LIVING SILVER (1949) E X H&H
15 min.; color. *
Story of handwrought silver; its past and vital place among contemporary arts. Modern American silversmithing shops; work of William E. Bennett (England); of Baron Erik Fleming (Sweden) and four of his American students. Pieces in Metropolitan Museum of Art's collection of historical silver: examples of work of French silversmith, Francois Thomas Germain; and of Paul Revere.

1563. LIVING WITH LIMITATIONS--PHYSICAL MEDICINE REHABILITATION FOR GENERAL MEDICINE AND SURGERY PATIENTS (1949) A II 6 VETS
20 min. **

Three veterans (one with arthritis, one with heart condition, one with damaged knee) rehabilitated: restored to physical, emotional and mental health. Work of physical, occupational, educational therapists as a team. Patients fitted into new jobs accommodating their physical limitations.

1564. LOADS OF COAL (1950) C VI
15 min.; color. ** IntHar
Mining and processing of coal from open-pit mine: removal of overburden, mining of coal, transportation to tipple, cleaning and grading at tipple, reclamation of land.

1565. LOADS ON UNDERGROUND CONDUITS (1951) D II IOSC
10 min.; color. *
Principles of Marston's load theory demonstrated. How fill loads on buried conduits can be minimized; upward friction forces explained; advantages of pulling sheathing gradually while filling. Problems of projecting conduits (rigid and flexible); how settlement ratios can work for engineer. Vehicles impact discussed.

1566. LOBSTERTOWN: THE STORY OF A COMMUNITY (1946) A IX 1 TwC-FF
(The World Today Series)
20 min. *
How people live together in a community in the United States: Corea, Maine. Importance of lobster fishing as occupation; how people help each other in daily tasks, supply an important food to national market, receive essential goods and services from the larger community; relationships between people in democratic society.

1567. LOCATING AND REPAIRING LEAKS (1944) A VI 1 OE
(Refrigeration Service--440)
17 min. *
How to test for sulphur dioxide and methyl chloride leaks; use halide torch to locate freon leaks; and repair several types of leaks.

1568. LOCATING HOLES, DRILLING AND TAPPING IN CAST IRON √ (1942) A VI 1 OE
(Machine Shop Work--Drill Press--47)
18 min. *
How to lay out bolt circle having eight holes; to use center punch marks as centers for drilling; to use tapping chuck in tapping two of holes for set screws.

1569. LOCUS √ √ (1946) C VII 3 KB
(Practical Geometry Series)
12 min. *
Concept of locus visualized and explained.

1570. LONG ROAD, THE (1935) A VII ETHYL
20 min. **
Development of motors from James Watt to date, stressing work of Kettering, Midgley and Boyd who sought to eliminate fuel knock. How motors have decreased in size, increased in power; effect of improved quality of gasoline.

1571. LONG TIME TO GROW, A (1951) A II 4d Vassar
35 min. *
Part 1: Activities of two and three year old children in nursery school, through nursery school day and through seasons of year: children learning and growing. Skill, effort, eagerness with which two's and three's go about their daily affairs. Ways in which teachers offer help (by setting limits as well as by giving support and encouragement). Variety and suitability of play equipment for natural and constructive activity. Quality and amount of supervision necessary. Role of student teacher.

1572. LONGSHOREMAN (1947) A IX 1 FRITH
11 min.; color.
Longshoreman, at work and at home; his relationship with family, union, boss and fellow workers. He works on ship in harbor; ships, shipping, transportation, harbors and commerce.

1573. LONNIE'S NEW CROP (1948) D I 5 SoPULP
11 min.; also color; also 35 mm. **
Young farmer puts unproductive land to work growing trees. Planting methods (hand and machine); when and how to make first cutting, for pulpwood.

1574. LOOK IT UP! (DICTIONARY HABITS) (1952) A IV 5 CORONET
10 min.; also color. *
How to use a dictionary for spellings, meanings, pronunciations; supplementary information contained in most dictionaries.

1575. LOOM, THE (1944) A IX 1 BARR
(Pioneer Life Series)
11 min.; also color.
Importance of loom in pioneer home, colonial U.S.A. Use of spinning wheel, niddy-noddy, swift, warping board, heddle board, harness, raddle, lease sticks, reed, shuttle. Weaver prepares warp and weft threads, threads loom, weaves cloth.

1576. LOOM WEAVING (1951) A V 1 IntFB
(Creative Hands Series No. 2)
6 min.; color. *
Art and manual training teachers show children how to build a simple loom out of old broom and a few pieces of wood; how to thread warp threads through heddle, how to wind and use bobbin. Proper use of different threads (wool, cotton, cellophane) for scarfs, bags, mats.

1577. LOOMWEAVING (1940) A V 1 BF
10 min.; also silent (15 min.) *
How a loom is threaded; process of weaving a specific pattern, explained and illustrated.

1578. LOUIS PASTEUR--MAN OF SCIENCE (1950) — A IX 2 STER
30 min.; also 35 mm. *
Louis Pasteur's scientific activities and discoveries in fields of chemistry and microbiology. 1856-1895. Findings on fermentation which led to pasteurization; control and cure of two silkworm diseases; sterilization and general use of antiseptics; cause of puerperal fever, staphylococcus (disease of bones) and streptococcus; control of chicken cholera; experimental vaccine; cure for rabies.

1579. LOUISA MAY ALCOTT (1950) — A IX 1 EBF
17 min. *
Biography of Louisa May Alcott, writer of popular human interest stories; her service in Civil War; incidents of personal life.

1580. LOWER SOURIS REFUGE (1944) — A VIII F&WS
45 min. ; color; silent. **
Reasons for establishing national wildlife refuges. Location of Lower Souris Refuge shown; improvements, including food and cover planting, necessary to successful operation of refuge. Nesting waterfowl; shorebirds, sora rail, prairie chicken in its dance, hatching of eggs in nest; dance of sharp-tailed grouse; pheasants, swallows, flickers, Baltimore oriole, lark bunting.

1581. LUBRICATION (1942) — A VII SINCL
30 min. **
Need and application of lubrication in various types of machines; theory of lubrication; functions of various types of lubricants.

1582. LUMBAR SYMPATHECTOMY (1951) — A II 1q THOR
15 min. ; color; silent. *
Technic of retroperitoneal sympathectomy depicted in case of arteriosclerotic gangrene.

1583. LUMBAR SYMPATHECTOMY (GANGLIONECTOMY) (PMF 5076) (1948) — A II 1q USArmy-P
33 min. ; color. **
Various applications; types of conditions to be benefited; procainization of structure to be removed; operative procedure; details of removal of sympathetic chain; anatomic and physiological defects produced by removal of certain portions of chain. Ordinary anatomic demonstration on cadaver.

1584. LUMBAR SYMPATHETIC GANGLIONECTOMY (1949) — A II 1q SturG
10 min. ; color. *
Antero-lateral, extra-peritoneal approach to lumbar sympathetic ganglionectomy; advantages of this treatment in peripheral, arterial, occlusive disease of lower limbs. (Dr. John L. Madden)

1585. LUMBER FOR HOMES (1950) — A III 1 WeCoLum
21 1/2 min.; also color. **
Mass production methods in saw mills; various uses of lumber in the construction and decoration of homes.

1586. LUMBER STATES, THE (Northwest United States)√√ (1949) — A IX 1 UWF
20 min. *
Heavily forested regions on western slopes of Cascade Range; lumbering; manufacture of lumber and lumber products and conservation of forest resources. Large rivers which provide water for irrigation and electric power used in developing industries; salmon fisheries. Irrigated valleys on eastern slopes of Range; rich soils; warm climate: truck farming.

1587. LUMBERMAN, THE (1945) — A IX 1 FR1TH
22 min. ; color.
Life and work of lumbermen in Northwest (at foot of Mt. Hood). Lumbering crews, working in unison, cut and direct felling of trees; transportation to mill; shipping lumber. Sawing with gasoline engines, high climbing, tree topping, bucking. Many different types of skilled and unskilled work involved in lumbering.

1588. LYND WARD AT WORK (1939) — E V KATZ
16 min.; silent. *
Complete process of wood engraving demonstrated by graphic artist creating wood cut.

M

1589. MACDUFFIE'S HAY BLOWER IN ACTION (1945) — D I 1 NYSExt
15 min.; color; silent. *
How home made hay blower was constructed from rear end of old thrashing machine; uses of blower for various purposes.

1590. MACHINE MAKER√√ (1952) — A VII EBF
11 min. *
Role of the machine tool in mass production (the automobile industry). Work of six basic machine tools; lathe, milling machine, drilling machine, grinder, boring mill, and planer.

1591. MACHINE TOOLS AND MOTIONS (1940) — A VI 1 GenM
18 min. **
How proper design of machine's controls improves operator's efficiency; how extension of operating levers and relocation of controls can permit operator to work with least amount of effort and motion.

1592. MACHINES DO WORK (1949) — C VIII YAF
11 min. *
Introducing concept of simple machines: lever, inclined plane, pulley, and wheel and axle. How machines help make man's everyday life easier.

1593. MACHINING A CAST IRON RECTANGULAR BLOCK √ (1942) A VI 1 OE
(Machine Shop Work--Shaper--20)
25 min. *
Use of parallels to set block in shaper vise for machining all six surfaces square with each other. Techniques for making finishing cuts.

1594. MACHINING A TOOL STEEL V BLOCK √ (1942) A VI 1 OE
(Machine Shop Work--Shaper--21)
21 min. *
A solid rectangular tool-steel block is set up in a shaper vise after being laid out with V grooves and rectangular grooves. Proper setup of work to assure parallelism of cut, and methods for selecting ram stroke, ram speed, cross feed, and depth of cut are shown.

1595. MACHINING LAMINATED PLASTICS √ (1944) A VI 1 OE
(Plastics--475)
19 min. *
How to machine typical laminated part; cut tube stock to length on circular saw; turn outside diameters on lathe; machine inside diameters by boring with lathe; and finish machining of part on milling machine.

1596. MACHINING WORK HELD IN CHUCK--USE OF REFERENCE SURFACES √ √ (1944) A VI 1 OE
(Machine Shop Work--Engine Lathe--60)
24 min. *
How to select and machine surfaces to be used for reference; how to set up workpiece accurately to reference surfaces in lathe chuck; how to use boring bar to machine several internal surfaces.

1597. MACHINIST AND TOOL-MAKER (1942) A VI 5 MAHNKE
11 min. *
Five ways of machining metals: employing engine lathe, drill press, milling machine, planer and grinder. Importance of knowing how to use measuring devices and blueprints. Beginners working on production line, operating automatic or semiautomatic machine. Foremen, setup and maintenance men. Tool and die makers. Knowledge and training required.

1598. MAGIC ALPHABET, THE (1942) A III 3 TFC-MGM
10 min. *
Dr. Christian Eijkman's discovery of Vitamin B-1; subsequent discovery of other vitamins; importance of vitamins to good health.

1599. MAGIC FIBER (1945) A VII PugetT
25 min. **
Logging operations in Pacific northwest (U.S.A.); treatment of wood at pulp mill: barking, sawing, chipping; sizing. Digestion of cellulose by cooking; making of sulphine from sulphurous acid. Washing, screening, thickening, bleaching, drying, forming of pulp sheets. Cutting, wrapping, baling, storage of sulphine pulp. Laboratory tests. Uses of pulp and paper.

1600. MAGIC IN AGRICULTURE (1947) C IV ETHYL
28 min. **
Farm chemurgy: what it has accomplished and what it promises to accomplish for American farmer. Place of scientist in relation to farmer; research projects developed and turned into commercially profitable production.

1601. MAGIC IN THE AIR (1942) B VI 5 GenM
9 min. **
Basic principles of television explained (animated diagrams); construction and operation of iconoscope, kinescope; how television arrives in homes.

1602. MAGIC OF FLUORESCENCE √ √ (1945) C VIII GE
17 min.; color. **
Principles of luminescence; fluorescent lighting explained; manufacture of fluorescent lamp described.

1603. MAGIC OF LUMBER, THE (1951) A VI 1 WeCoLumb
22 min.; also color. **
Lumber grading; wood growth and wood use from forest, through sawmill, to man-built structures of many kinds; importance of work of lumber grader; wood-testing laboratories, tests upon which lumber grading rules are based.

1604. MAGIC WAND OF INDUSTRY--ARC WELDING (1949) A VII LincEC
25 min.; color. **
History and development of electric welding; its applications in industry. Fundamentals of process; "arc force" explained.

1605. MAGNETISM (1947) C VIII
10 min.; also color. CORONET
In explaining his telegraph set a boy demonstrates types of permanent magnets, attraction and repulsion; how magnets are made; fields of force, electromagnets, every day use of magnets. Magnetism defined, differentiated from electricity, demonstrated.

1606. MAGNETS (1946) C VIII YAF
13 min. *
Elementary science film presenting facts about bar magnets explained by father to two children: poles, attraction, repulsion; suspended bar magnet as compass; steel bar magnetized; conductors, non-conductors.

1607. MAILMAN √ (1947) A IX 1 EBF
11 min. *

Services rendered by U.S. Post Office. City and rural deliverymen on rounds. How mail is sorted, delivered; picked up, etc. Sale of money orders and stamps. How packages are handled.

1608. MAINE HARBOR TOWN (Northeast, United States) √√ (1949) 20 min. * — A IX 1 UWF

Rugged regions, poor soil, short growing season of region. How people supplement meagre farm incomes illustrated by the Kellers who earn what they can by raising poultry and dairy cattle and work in mills and factories to provide year 'round income. Fishing; tourists.

1609. MAINTAINING CLASSROOM DISCIPLINE √ (1948) (Teacher Education Series) 14 min. — A VI 3 McG-H

Contrasting methods of handling same class. Techniques for securing proper class attitude and conduct, explored. Basic principles of method which help toward productive and mutually satisfactory class control.

1610. MAINTAINING GOOD WORKING CONDITIONS (1944) (Problems of Supervision--52) 9 min. * — A VI 1 OE

Cases where improvement in working conditions resulted in increased production and better satisfied workers.

1611. MAINTAINING QUALITY STANDARDS (1944) (Problems of Supervision--164) 10 min. * — A VI 1 OE

Role of supervisor in maintaining quality as well as quantity made clear by incidents involving poor instructions, carelessness, and lack of pride in good workmanship.

1612. MAINTAINING WORKERS' INTEREST (1944) (Problems of Supervision--159) 13 min. * — A VI 1 OE

Various workers shown doing poor work because their jobs hold no interest for them. Point made that supervisor should be alert to detect and remedy such situations.

1613. MAKE A HOUSE MODEL (1948) 10 min. * — A V 1 Bailey

How to interpret plans and build a scale model with simple tools and materials; use of the various tools, necessity for careful workmanship.

1614. MAKE A LINOLEUM BLOCK (1939) 16 min.; silent. * — E V KATZ

How to cut linoleum block; use of cutting tools; printing of block.

1615. MAKE A MOBILE (1948) 10 min. * — E X Bailey

What can be done with scrap materials: wires, thread, sheet aluminum, etc. Development of an idea into pattern drawn on paper; assembling various parts of mobile into its final three-dimensional shape.

1616. MAKE AN ETCHING (1940) 30 min.; silent. * — E V KATZ

Technique of etching; process of "grounding", smoking the plate, drawing with needle, etching with acid, pulling the proof.

1617. MAKE EVERY MOVEMENT COUNT (1942) Projection time as desired (participational; 630 ft.); color; silent. * — A VI 1 PURDUE

Application of basic principles of motion economy for purpose of simplifying work. Eight pairs of before and after pictures embodying seven principles of work simplification. Principles listed; flashbacks to project which illustrated their application. Sample operation with questions for class discussion.

1618. MAKE WAY FOR YOUTH (1947) 18 min. * — B VIII AJC

Startled into action by tragedy, people in a typical American town unite on a youth program and prejudices based on differences in neighborhood, race and religion begin to break down.

1619. MAKE-UP FOR BOYS √ (1951) (Drama Series) 11 min.; color. * — E III IntFB

"Straight" and "character" make-up shown step by step: preparation of face, application of base color, make-up of eye, mouth, cheeks; greying of hair; application of beard.

1620. MAKE-UP FOR GIRLS √ (1951) (Drama Series) 11 min.; color. * — E III IntFB

"Straight" and "character" make-up demonstrated in detail: base color, eye make-up, mouth, cheeks; greying of hair; applying wrinkles with grease paint.

1621. MAKE-UP FOR THE THEATRE (1951) 15 min.; color. * — E III UCLA

Step by step processes of application of stage make-up. Make-up for both male and female faces; differences explained. Make-up in respect to stage lighting and equipment.

1622. MAKING A BRONZE STATUE √√ (1939) 11 min. * — E X EBF

Sculptor executes bronze statuary group, from preliminary sketches, through building rough figures on wire skeleton forms, small scale reproduction, to final casting.

1623. MAKING A COLD BEND ON A HANDPOWERED MACHINE (1943) A VI 1 OE
(Shipbuilding--Pipefitting--108)
13 min. *
Why bends in pipe are necessary; maximum and minimum pipe size for cold bending by hand; use of hand bender; methods used in measuring for bends, proper bend ratio, how to use table of factors; how to use templates.

1624. MAKING A CORE BOX FOR A FLANGED PIPE ELBOW √ (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--330)
21 min. *
How to use pattern layout in making core box; design core box; lay out curved core piece; turn core cavity in curved piece; assemble core box having curved core piece; finish core box.

1625. MAKING A CORE BOX FOR A MACHINE BASE √ (1944) A VI 1 OE
(Patternmaking--Problems in Patternmaking--334)
13 min. *
How patternmaker, working from casting, goes about job of designing core box; how to design and construct two core boxes in which mating cores are to be made, large core boxes with loose pieces, and small, half core box with interchangeable loose boxes.

1626. MAKING A CORE BOX FOR A TAIL PRINT √ (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--350)
18 min. *
How to use dry sand cores in molding holes in castings; use pattern layout to make core box; distinguish between core and core print; lay out core print; add core; and determine parting line of core box.

1627. MAKING A CORE BOX FOR A VERTICAL CORE √ (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--329)
19 min. *
How to make sand cores; function of sand core: how to make half box; use parted boxes; layout pattern in making core box; prepare core box pieces; assemble core box.

1628. MAKING A FIVE-TUCK SPLICE √ (1944) A VI 1 OE
(Aircraft Work--Control Cables--143)
26 min. *
How to make first tuck and four succeeding tucks; taper splice; set, serve, and shellac splice.

1629. MAKING A GOOD FOOD BETTER (1947) A III 3 Clems
14 min.; color.
Health reasons why corn foods should be enriched: history and processes of corn enrichment; special feeder design for enriching meal in small mills.

1630. MAKING A MASK (1951) A V 1 IntFB
(Creative Hands Series No. 2)
6 min.; color. *
Group of children directed through simple procedures of making two kinds of masks out of wet paper and paste. Suggestions for painting the masks and adding hair or other accessories.

1631. MAKING A MASTER CONTOUR TEMPLATE √ (1944) A VI 1 OE
(Sheet Metal Work--Templates--125)
18 min. *
What master contour template is, its purpose; how to transfer line from linesboard to piece of sheet metal; measure and record bevel angles; importance of frequent checks for accuracy.

1632. MAKING A MASTER DEVELOPED LAYOUT √ (1944) A VI 1 OE
(Sheet Metal Work--Templates--126. 127)
20, 16, 15 min. *
Part I. How to make complete pattern or master developed layout for bulkhead in airplane fin, using master contour template.
Part II. How to complete master developed layout by calculating and scribing form block lines.
Part III. How patternmaker constructs pattern, constructs and checks master core boxes, checks working core boxes, pastes up test cores, assembles test cores.

1633. MAKING A MATCHBOARD PATTERN (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--328)
21 min. *
How to sketch matchboard; make patterns; prepare gates to connect patterns; prepare runner for cope side; assemble matchboards; turn draft taper on hole; attach flask fixtures.

1634. MAKING A ONE-PIECE FLAT PATTERN (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--321)
22 min. *
How to identify parts of molding flask; use shrinkage rules; prepare pattern layout; make identical castings; and finish patterns.

1635. MAKING A PACK BASKET (1944) A V 1 BSA
16 min.; also color. *
An old guide demonstrates technique of making a pack basket, from felling black ash tree for bark to finished basket.

1636. MAKING A PATTERN FOR A FLANGED PIPE ELBOW (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--327)
18 min. *
How to make right-angle layout; turn out separate core prints; make split flanges; set flanges into core prints; assemble half pattern on layout; dowel an elbow pattern; apply leather fillets.

1637. MAKING A PATTERN FOR A MACHINE MOLDED STEEL GLOBE AND ANGLE VALVE (1944) A VI 1 OE
(Patternmaking--Problems in Patternmaking--340)
14 min. *
How machine molding affects pattern design; how patternmaker designs and constructs pattern for valve body, including gating system.

1638. MAKING A PATTERN FOR A THREE-PART MOLD (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--326)
20 min. *
Reasons for three-part pattern; how to make layout; segment body or center section; eliminate end grain on large flanges; and turn large work on lathe.

1639. MAKING A PATTERN REQUIRING A COVER CORE (1944) A VI 1 OE
(Patternmaking--Problems in Patternmaking--332)
14 min. *
How consideration of molding and coring problems leads to choice of cover core; how patternmaker designs pattern (and core boxes) requiring cover core; designs cover print; constructs pattern for cover pulley.

1640. MAKING A PATTERN REQUIRING BOX CONSTRUCTION (1944) A VI 1 OE
(Patternmaking--Problems in Patternmaking--333)
17 min. *
How patternmaker approaches task of making pattern from casting; how he designs pattern to be made of box construction; why box construction is used; and how patternmaker designs pattern for large machine base.

1641. MAKING A PATTERN REQUIRING SEGMENTAL CONSTRUCTION (1944) A VI 1 OE
(Patternmaking--Problems in Patternmaking--335)
13 min. *
How and why segmental construction is preferred method for some patterns; how patternmaker designs and constructs pattern for gear blank which requires segmental construction.

1642. MAKING A PATTERN USING A GREEN AND DRY SAND CORE (1944) A VI 1 OE
(Patternmaking--Problems in Patternmaking--331)
14 min. *
How green sand core is molded; how patternmaker determines when to allow for green sand core; designs pattern allowing for green sand core; visualizes; constructs particular pattern.

1643. MAKING A PATTERN WITH A HORIZONTAL CORE (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--323)
14 min. *
When to use horizontal core; how to allow for shrinkage in bronze; how to lay out fillets; make horizontal core prints; true up parting plane; pattern with horizontal core and turn crusher strips.

1644. MAKING A PATTERN WITH A TAIL PRINT (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--324)
19 min. *
How to mold castings with holes; make rough sketch for visualizing actual casting; dry sand cores; form core cavities by using tail prints; and make layout including tail prints.

1645. MAKING A PATTERN WITH A VERTICAL CORE (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--322)
14 min. *
Importance of making preliminary sketch; how to make layout; allow for shrinkage and finish; lay out core prints; use layout; assemble pattern; allow for draft; and shellac pattern.

1646. MAKING A SEGMENTED PATTERN √ (1944) A VI 1 OE
(Patternmaking--Fundamentals of Patternmaking--325)
22 min. *
How to plan segmentation of pattern; lay out segments and web; assemble pattern; prepare recessed hub; finish pattern.

1647. MAKING A SIMPLE CORE (1944) √ A VI 1 OE
(Foundry Work--Bench Molding --424)
15 min. *
How to prepare a suitable sand for coremaking; make small cylindrical core in either one or two pieces; assemble two-piece core; how core gases escape when mold is poured.

1648. MAKING A STAINED GLASS WINDOW (1942) A VI 3 UofC
20 min.; color.
Historical background of stained glass making; techniques demonstrated, step by step. Finished work shown.

1649. MAKING A WRAPPED AND SOLDERED SPLICE √ (1944) A VI 1 OE
(Aircraft Work--Control Cables--144)
15 min. *
How to make ball soldered terminal; prevent wires from unlaying when cut; fit cable to thimble; make wire wrap.

1650. MAKING AN INDIAN TIPI (1948) A V 1 BSA
8 min. ; also color. *
How to erect an Indian tent.

1651. MAKING AND REPAIRING TUBING CONNECTIONS (1944) A VI 1 OE
(Refrigeration Service--452)
18 min. *
How to straighten, work, cut and dress copper tubing; make a flare for various sizes of tubing; and to sweat in connector to cover a break.

1652. MAKING BABY'S FORMULA (1949) A III 3 EvapM
12 min. ; sound. **
What goes into baby's formula; things needed in preparation; how to prepare them for use; how to make the formula, bottle and cool it; how to feed the baby.

1653. MAKING BOOKS (1947) A VII EBF
11 min. *
Important steps in manufacture of books from author's manuscript to completed book. How type is set by linotype; locked into page form; how electroplates are made; how sheets are printed, cut, folded, and bound; how covers are made and attached; how each book is finally enclosed in a bright-colored jacket.

1654. MAKING BRICKS FOR HOUSES (1947) A III 1 EBF
(Clothing and Shelter Series)
11 min. *
How bricks are made, from digging shale to loading finished bricks into freight cars for shipment. How necessary materials are assembled, pulverized, mixed; how bricks are shaped, cut, dried, baked, graded.

1655. MAKING COTTON CLOTH (1946) A III 2 EBF
11 min. *
How a child's cotton dress is made in a modern factory: designing, sample-making, pattern-making, cutting, sewing, finishing, pressing, packing. An elementary view of mass production. Division of labor in modern production.

1656. MAKING ELECTRICITY √ √ (1949) C VIII EBF
11 min. *
How electricity is made by moving coil of wire through magnetic field; operation of hand-powered generator. How same principle applies in generating electricity in large hydro-electric plant.

1657. MAKING GLASS FOR HOUSES (1948) A III 1 EBF
(Clothing and Shelter Series)
11 min. *
How limestone, sand, soda ash are obtained; how made into glass. Large scale manufacture portrayed. Technique of fitting glass panes into window frames, demonstrated.

1657 1/2. MAKING INDIAN MOCCASINS (1948) A V 1 BSA
17 min. ; also color. *
How moccasins are made, from selection of hide to first fitting.

1658. MAKING OF A MURAL (1947) E VIII EBF
11 min. ; color. *
Thomas Hart Benton demonstrates essential steps in planning and completing a mural composition; methods of achieving three-dimensional effects and brilliant coloring.

1659. MAKING SENSE WITH SENTENCES (1949) A IV 3 CORONET
10 min. ; also color. *
Importance of expressing complete thoughts in sentences. Preparation of well-written letter; fundamental construction of good sentence; importance of subject and predicate.

1660. MAKING SHEET METAL REPAIRS (1944) A VI 1 OE
(Airplane Maintenance--Aircraft Maintenance--252)
19 min. *
How to prepare hole to receive patch, "bump" out plug and doubler; mark and drill plug and doubler; and rivet completed patch to part.

1661. MAKING SHOES √ (1947) A VII EBF
(Clothing and Shelter Series)
11 min. *
Step-by-step process of making shoes in modern factory: leather selected, cut; linings and uppers sewed; uppers sized and shaped; insole attached, cemented, stitched to welt; heels attached; shoes trimmed, edged, finished.

1662. MAKING THE MOST OF SCHOOL (1948) A I 1 CORONET
10 min. ; also color. *
Infinite riches which school offers beyond day-to-day assignments. Merely "getting by" not as interesting as participating in class discussions, investigating opportunities for additional learning, taking active interest in clubs and sports, i.e., as making most of school.

1663. MAKING THEATRICAL WIGS (1950) E III UCLA
10 min. *
Process of making a wig: preparation of necessary materials; cutting, sewing, reinforcing; use of yak hair. Tie-off illustrated. Bald wigs. Hairdressing on easily constructed headblock.

1664. MALARIA (4-024) √ (1944) A II 1r
13 min.; (freeze frame photography). ** CDC-UWF
Malaria infection in family home, illustrated; Anopheles quadrimaculatus and its habitat, described. Results of disease shown. Methods of transmission diagnosis, treatment of malaria. Individual preventive measures: screening ill person, screening windows and porch, covering all mosquito-admitting cracks, killing all mosquitoes in home. Community preventive measures: draining or filling-in ponds, cutting plant growth along water edge, spraying or dusting breeding places, installing permanent drainage systems.

1665. MALARIA CONTROL IN THE TENNESSEE VALLEY (1941) A II 1 r TVA
40 min.; color. **
Record of malaria control program carried out by Tennessee Valley Authority in the Tennessee Valley: research, coordination of services, method of extermination of mosquitoes. Especially suitable for use by health authorities.

1666. MALARIA CONTROL OF IMPOUNDED WATERS (4-069. 1) √ (1948) A II 3a CDC-UWF
22 min.; color. **
Developing a malaria control program (Kentucky Reservoir). Reservoir clearance: before impoundage. Permanent control measures: dyking and dewatering, deepening and filling, restricting land use. Emergency control measures: house mosquito-proofing; spraying of premises. Reservoir operations: water level management, shoreline maintenance, drift removal, larviciding.

1667. MALE SEX HORMONE, THE √ (1950) C II SCHER
26 min.; color. **
Origin of male sex hormone; its metabolic effects; deficiency states; effects of exogenous male sex hormone under various clinical conditions.

1668. MALIGNANT ORAL TUMORS (PMF 5137) (1950) A II 1 q USArmy-P
40 min.; color. **
Series of lesions which occur in oral cavity and adjacent structures.

1669. MALNUTRITION IN THE HOSPITAL PATIENT √ (1949) A II 1 1 SQUIBB
30 min.; color. **
Importance of postoperative nutritional regimen involving proper ratio between all various nutrients and foodstuffs in preventing malnutrition in hospital patient; how trauma, surgery, and infectious and wasting illnesses produce negative nitrogen balance; how these conditions are accompanied by toxic destruction of protein.

1670. MAMMALS OF THE COUNTRYSIDE (1947) C II CORONET
10 min.; also color. *
Habits and characteristics of common American small mammals: woodchuck, fox, mink, skunk, opossum, coon, muskrat, beaver. Those which are of service to farmer distinguised from those which are pests.

1671. MAMMALS OF THE ROCKY MOUNTAINS (1947) C II CORONET
10 min.; also color. *
Distribution and adaptations of mammal life to special type of environment (mountain region): typical mammals of each plant zone, how seasonal changes affect their lives: moose, beaver, mule-deer, timber-wolf, cougar, porcupine, grizzly bear, cony, woodchuck, mountain goat, elk, bighorn sheep.

1672. MAMMALS OF THE WESTERN PLAINS (1947) C II CORONET
10 min.; also color. *
Interrelationship of herbivores, carnivores and rodents on western plains of North America: bison, pronghorned antelope, mule-deer, cougar, timber wolf, elk, coyote, jack rabbit, prairie dog, ferret. Their characteristics and habits.

1673. MAN AGAINST MICROBE (1933) A II 1 c METL
10 min. **
Dramatization of development of three methods (heat, chemicals, toxoids) of control of disease caused by harmful microorganisms. Importance of microscope; Van Leeuwenhoek. Pasteur. Lister. Von Behring. Beneficial bacteria.

1674. MAN MADE MIRACLES (1948) D I 2 AmGCC
29 min.; color. **
Results of selective breeding of horses, dogs and cattle (especially Guernsey). Outstanding features of each breed examined; action shots show special adaptations to specific tasks. Primrose, Grand Champion Guernsey. How such cattle have been developed and are handled under ideal conditions; how their milk is processed.

1675. MAN ON HORSEBACK (1949) A IX 1 GenM
10 min. **
Various steps in selecting and training horses for duty with police force, from first elementary lessons through final tests of shouting crowds, waving banners, revolvers fired close by and speeding cars; how horse is carefully taught things he must know and do to help keep city traffic moving safely and smoothly.

1676. MAN ON THE LAND (1951) A VII
16 min.; color. ** AmPetrol
How man worked his way up from discovery of power in stone-headed axe to power in fuel pump on modern farm. How through use of power man has obtained an improving living from the land.

1677. MAN WHO CHANGED THE WORLD, THE (1941) (MGM Miniature Series) 11 min. * — A IX 2 TFC-MGM

Story of James Hargreaves, who invented spinning jenny in 1767, thus laying foundations for mass production line and Machine Age.

1678. MANAGEMENT AND TECHNIQUE OF PULMONARY LOBECTOMY (PMF 5065) (1947) 27 min.; color. ** — A II 1 q USArmy-P

Bronchiectasis of left lower lobe of lungs; extirpation of diseased lung tissue.

1679. MANAGEMENT OF ABDOMINAL COLOSTOMIES (PMF 5008) (1947) 24 min.; color. ** — A II 1 q USArmy-P

Experience record of cases encountered during World War II; factors essential to evaluation of each type; method of approach.

1680. MANAGEMENT OF CICATRICAL STRICTURES OF THE ESOPHAGUS, THE (1941) 15 min.; color. * — A II 1q MCVa

Treatment of stricture of esophagus; treatment of bronchiectasis by blowing sulphanilamide into bronchi with aid of bronchoscope. Esophageal strictures treated by passage of sounds guided by threads drawn through gastrotomy opening as swallowed and permitted to anchor in coils of intestine. (For teaching of surgery)

1681. MANAGING A PLAY √ (1951) (Drama Series) 11 min. * — E III IntFB

Work of publicity director with respect to a play: preparation of newspaper advertisements, releases, posters, handbills. Box-office: ticket selling and ticket counting.

1682. MAN'S GREATEST FRIEND (1938) (Pete Smith Specialties Series) 10 min. * — A II 1 s TFC-MGM

Pasteur's great work with vaccine against hydrophobia; dogs and their service to mankind.

1682 1/2. MANSON'S BLOOD FLUKE (4-034) √ (1948) 17 min. ** — A II 1r CDC-UWF

Life cycle of parasitic blood fluke, schistosoma Mansoni.

1683. MANUAL CUTTING A BEVEL--FREEHAND √ (1944) (Machine Shop Work--Welding--187) 13 min. * — A VI 1 OE

How to select tip for bevel cutting; clean tip; adjust oxygen and acetylene pressure for bevel cutting; cut bevel with minimum drag.

1684. MANUAL CUTTING A SHAPE--FREEHAND GUIDED √ (1944) (Machine Shop Work--Welding--188) 16 min. * — A VI 1 OE

How to make plywood template for cutting; make tip guide device; position template for cutting; use guide device; and circle cutting device.

1685. MANUAL CUTTING TO A LINE--FREEHAND √ (1944) (Machine Shop Work--Welding--186) 21 min. * — A VI 1 OE

How to assemble an oxyacetylene cutting outfit; adjust preheating cutting flames; make a 90° freehand cut; and disassemble the cutting outfit.

1686. MANUAL PREPARATION OF TABLET TRITURATES, THE (1951) 17 min.; color. * — A II 1 k AACP

Tablet triturates defined; method of administration described. Different types shown. Materials and equipment necessary for preparation. Selection of proper mold and other equipment; determination of weight of total capacity of mold to be used; and of correct amount of diluent and medicament necessary. Significance and importance of these steps. Technic of weighing ingredients, of triturating (method of geometric dilution), moistening with proper amount of excipient, filling mold, ejecting tablets.

1687. MANUAL ROTATION IN THE MANAGEMENT OF OCCIPUT POSTERIOR AND OCCIPUT TRANSVERSE POSITIONS (1943) 35 min.; color; silent. * — A II 1 h NU

Method of delivery in persistent occiput posteriors and transverse presentations illustrated on manikin. Correct and positive diagnosis of posteriors; rotating of head manually, correct application of forceps; maneuvers of the manikin, delivery of clinical cases in each of the different positions.

1688. MANUFACTURE OF CARMET CARBIDES (1946) 13 min.; color. ** — A VII AlleLud

Need for hard carbon steels to cut steel. Process of making carmet cemented carbide cutting tools (close ups); parts of tool assembled with flux. High-frequency brazing (close ups); types and styles of tools. Grinding and shot-blasting before lacquering. Protective coat of plastic wax on cutting edge.

1689. MANUFACTURE OF CARMET TOOLS (1949) 11 min.; color. ** — A VII AlleLud

Molding cemented carbide blanks: placing powdered carbide in mold, inserting die, com-

pressing under high pressure. Blanks covered with asbestos, presintered; shaped and cut to specification (close ups). Cut and shaped pieces loaded into boats, supported by fine sand; boats placed in and removed from furnace; removal of sand; sand-blast cleaning.

1690. MANUFACTURE OF DIES (1944) — A VII AlleLud
11 min.; color. **
Good grade steel required for dies; no die any better than steel from which made. Tolerances computed to 1/10,000 of inch. Process of heat treatment; testing for hardness; grinding of every surface for precise accuracy. Skill of men who understand precision. Methods of checking; need for constant overhaul of machines: use of dial indicator, gauge block, electronic gauge.

1691. MANUFACTURE OF PIG IRON (1941) — A VII BRAY
10 min.; silent. *
Mining and refining of iron ore; how blast furnace works (animation): charging, blowing in air, elimination of impurities; handling of slag and molten iron.

1692. MANUFACTURE OF STAINLESS BARS AND WIRE (1951) — A VII AlleLud
27 min.; color. **
Manufacture of stainless steel bars and wire shown in detail: electric melting, rolling, annealing, pickling, wire drawing, explained and illustrated.

1693. MANUFACTURE OF STAINLESS STRIP (1951) — A VII AlleLud
20 min.; color. **
Manufacture of stainless strip from raw material to finished article: workings of furnaces, rolling mills, annealing furnaces. Hot and cold rolling and finishing operations.

1694. MAPLE SAP TO MAPLE SYRUP (1947) — D I 1 NYSExt
32 min.; color; silent. *
How to gather maple sap; modern sap house and facilities; how improved methods can increase maple syrup production.

1695. MAPS AND PIONEERS (1949) — A IX 1 VaDeptE
23 min.; also color. *
How physical features of state of Virginia governed course of exploration, settlement and history, there. Map of Virginia; maps in general.

1696. MAPS AND THEIR USES (1951) — C V CORONET
10 min.; also color. *
How to use a map; scale of distances, grid, and legend explained; uses of contour maps for understanding topography; importance of maps in every day living.

1697. MAPS ARE FUN (1946) — C V CORONET
10 min.; also color. *
In preparing map to help Dick take over Ronnie's paper route, boys encounter fundamental problems of map making. Experienced cartographer helps them prepare map, explaining to them legend, scale, grid, uses of color, and types of maps.

1698. MARCH OF THE MOVIES (1949) — E IX MTFF
20 min. *
Development of cinema (art of telling stories with camera), from its clumsy beginnings to today's techniques.

1699. MARDI GRAS, THE (1950) — A IX 1 Repub
(Land of Opportunity Series)
9 1/2 min.
How the Mardi Gras pageant is celebrated in New Orleans.

1700. MARINE ANIMALS AND THEIR FOOD (1949) — C II CORONET
8 min.; also color. *
Interrelation of marine animals and their surroundings; various sea animals, sea anemone, sea urchin, barnacle, octopus; five general types of food on which they depend. Specific adaptations of these animals for obtaining one or more of main types of food.

1701. MARINE COMMUNITIES — C II
15 min.; color; silent. * — IO-R
Invertebrates characteristic of intertidal zone (periodic immersion, impact of waves, tide pools, sheltered bays, docks and bridges, estuaries, and mud flats). Mussell shell supports marine community: brachiopods, tunicates, annelids, barnacles, echinoderms, coelenterates. Hermit crab surmounted by dense bryozoan colony. Spider crabs decorate themselves with algae and various invertebrates, forming community beneficial to all concerned.

1702. MARK TWAIN AND TOM SAWYER √ (1952) — E III IntFB
48 min. *
Life and times of Mark Twain recreated in visit to the river and river towns immortalized in humorist's work. Mississippi River boats. Tom Sawyer's and Aunt Polly's home.

1703. MARKET WISE (1947) — D I 2 WCFA
29 min.; color.
Eggs gathered on farm; rushed to cooperative receiving station, candled, graded, and packed for market. Preparation of egg meats for use in cooking and salad dressings. Drying of eggs. Raising young chickens through selection of breeding stock, incubation, brooding, and range management. Turkey raising; methods of processing at factory. Importance of research to insure a high quality product.

1704. MARRIAGE IS A PARTNERSHIP (1951) — A VI 4 — CORONET
15 min.; also color. *
Some of the major problems arising during first year of marriage; how young married couple learns to live together, adjust parental influences, assume responsibilities, build marriage goals.

1705. MARRIAGE TODAY (1950) (Marriage Series) — A VI 4 — McG-H
22 min.
Dramatic treatment of ideals and goals of adult love; how marriages work through clear analysis of mutual aims and cooperation in striving to achieve them.

1706. MATERIALS CONTROL√ (1951) (Industrial Organization and Management, Series I) — A VI 1 — McG-H
10 min.
Importance of delivering right amount of material to right location at right time. How materials are requisitioned, purchased, received and handled in industry. Checking; inventory; proper handling in stockroom; adequate stockroom space and equipment.

1707. MATERIALS HANDLING--IN RECEIVING, WAREHOUSING AND SHIPPING (1948) — A VII — GE
24 min.; color. **
Modern equipment for handling materials; conveyors, cranes and industrial trucks shown in action; contrasted with manual handling.

1708. MATERIALS HANDLING, NO. 1, NO. 4 (1947, 1949) — A VII — CLARK
29, 20 min. **
No. 1. Use of fork trucks in handling materials; towing with tructractors; use of tructractors in streetcar factory; unit load handling by fork-lift-trucks during river-barge and ocean-ship loading operations; fork trucks in cement block plants and brick yards.
No. 4. Use of fork trucks in various industrial situations for lifting and moving materials; stone quarry, bottling company, wholesale grocery, banana warehouse, wholesale drug establishment.

1709. MATTER AND ENERGY (1947) — C VIII — CORONET
10 min.; also color. *
Matter defined; its general properties; its forms, their characteristics. Elements. Compounds. Physical and chemical changes. Matter in motion: energy, mechanical, electrical, chemical, radiant; potential and kinetic. The law of conservation. Conversion of matter into energy.

1710. MEANING OF ENGAGEMENT, THE (1952) — A VI 4 — CORONET
16 min.; also color. *
How psychological unity should be developed during engagement period; planning for future; problem of breaking an engagement.

1711. MEANING OF FEUDALISM (1950) — A IX 2 — CORONET
10 min.; also color. *
Physical elements, flavor, and spirit of feudal times illustrated in experiences of Jacques, a French boy who lives in ancient town below feudal castle.

1712. MEANING OF LONG DIVISION (1947) — C VII 1 — EBF
11 min. *
Meaning of long division explained; how to shorten and simplify by grouping subtractions.

1713. MEANING OF PERCENTAGE (1947) — C VII 1 — YAF
10 min. *
Meaning of percentage related to hundredths both as fractions and decimals. Graphic representations. Meaning of common percentages developed and related to social situations.

1714. MEANING OF PI (1949) — C VII 3 — CORONET
10 min.; also color. *
Study procedure for checking and reviewing the numerical value of pi; use of circles in art, industry, and commerce.

1715. MEANING OF THE INDUSTRIAL REVOLUTION, THE (1950) — A IX 2 — CORONET
10 min.; also color. *
Beginnings of Industrial Revolution in 18th century England; inventions, factories, new methods; results, problems, benefits to mankind.

1716. MEASUREMENT (1947) — C VII 1 — CORONET
10 min.; also color. *
Don finds that from moment he gets out of bed, the pattern of his life is interwoven with measurement: time, temperature, liquid measure, weight, cubic, square, and linear measure permeate the fabric of society. Illustrations he encounters are simple but explain and highlight importance of standardized measure.

1717. MEASUREMENT OF ELECTRICITY (1948) — C VIII — CORONET
10 min.; also color. *
Volt, ampere, ohm and watt defined; physical concepts involved in each explained in a boy's dream.

1718. MEASUREMENT OF THE VELOCITY OF LIGHT (1952) (College Physics--Heat and Light Series) — C VIII — McG-H
6 1/2 min.
Toothed-wheel method (Fizeau) described; Michelson's modification explained.

1719. MEASUREMENT WITH LIGHT WAVES (1944) C VIII OE
(Engineering--Materials Testing--174)
15 min. *
Principles of measurement with light waves; nature of light waves; the cause of interference bands; use of these bands in ultra-precision measurement. Procedures in gage block inspection.

1720. MEASURING PIPE, TUBING, AND FITTINGS (1943) A VI 1 OE
(Shipbuilding--Pipefitting--105)
15 min. *
Types and sizes of pipe and tubing, various weights, and types of fittings--screwed, bolted, and welded; need for accurate measurement; ID and OD; how to measure for fittings, offsets and bends and make allowances for length of thread when measuring for screwed fittings.

1721. MEATS WITH APPROVAL (1949) A VIII
20 min.; also 35 mm. ** USDA
Purposes of United States Government meat inspection program; how it helps assure wholesome, clean meat for consumer. Steps of inspection shown, from live animal through slaughter house and cannery. How meat inspection law came into being, how it is administered, what it means to consumer.

1722. MECHANIC, THE (1946) A IX 1
14 min. STATE
Work and life of master mechanic in small town (U. S. A.); on job and at home. Close cooperation between craftsmen at work; role of good labor-management relations. Worker's leisure activities; family life.

1723. MECHANICAL APTITUDES (1951) A VI 5
11 min.; also color. * CORONET
How to test mechanical interests and abilities; high school counselor helps boy choose courses on basis of interests, abilities, future plans.

1724. MECHANICAL REFRIGERATION--HOW IT WORKS (MN 2246a) (1944) A VI 1 USNavy
(Shop Work Series)
21 min.
Principles used in mechanical refrigeration: expansion, evaporation, compression, condensation. Heat flow, latent flow explained. Common refrigerants: alcohol, ammonia, carbon dioxide, freon. Refrigeration plant shown and explained.
This film is one of a series on refrigeration, including control mechanisms and operating practices.

1725. MECHANICS OF LIQUIDS (1949) C VIII
10 min.; also color. * CORONET
Series of simple experiments demonstrates various basic principles related to mechanics of liquids: principles of pressures in free liquids, confined liquids and behavior of solid objects submerged in liquid. Principles of hydrostatics related to everyday life.

1726. MECHANISM OF BREATHING √W (1936) C II EBF
(The Human Body Series, 2)
11 min. *
Function of breathing analyzed: work of pharynx, larynx, trachea, bronchi, bronchiole. Role of phrenic nerve. Exchange of oxygen and carbon dioxide between air sacs and bloodstream. Mechanisms correlating rates of breathing and body activity. Principles of artificial respiration.

1727. MECHANISM OF CELL DIVISION, THE (PMF 5036) (1946) C II USArmy-P
24 min.; silent. **
Study of nuclear and cytoplasmic detail found during division and multiplication in grasshopper sperm cells.

1728. MEDICAL EXAMINATION, THE (TF 8-1536-8) (1949-50) A II 1 I USArmy-P
19, 17, 17 min. **
Part I: Importance of Examination. Importance of the examination, of attitude of examining doctor and of relationships between doctor, patient, and administrator.
Part II: The Medical History. Importance of knowing medical past of patient before attempting to examine him. How to ascertain and record case history.
Part III: The Examination. Importance of medical examination in total; importance of role each specialist plays in giving clear overall medical picture of each patient. Method of making examination.

1729. MEDIEVAL ARCHITECTURE (1947) E I
15 min. * UWF
Principles of architectural form lines as developed through medieval period, explained and illustrated in examples of feudal castles in Loire Valley.

1730. MEDIEVAL WORLD, THE (1950) A IX 2
10 min.; also color. * CORONET
Geographic and historical settings of medieval period; remnants of medieval world in York, Ghent, Chartres; the Crusades; medieval trading centers, cathedrals, universities, art and literature.

1731. MEET McGONEGAL (MF 956) (1944) A II 6 USArmy-P
12 min. **
How well known amputee, now a successful business executive, adjusted himself to use of artificial arms; how well a man with two artificial arms can get along.

1732. MEET THE CRABS (1947) C II
15 min.; color. * HOLST
Several varieties of crabs shown in their natural surroundings: sand crab, rock crab, swimming crab, cancer crab, decorator crab. How they live, and protect themselves.

1733. MEET THE WATERFOWL (1942) C II
10 min.; color; also silent, MichDC
15 min. **
Eighteen species of Michigan waterfowl; typical duck and goose hunting scenes.

1734. MEET YOUR FEDERAL GOVERNMENT (1946) A VIII YAF
15 min. *
The federal government of the United States seen through the eyes of a high school senior visiting his uncle, a congressman in Washington. The structure of the national government explained; purpose and function of each branch; checks and balances. The film ends on an inspirational note.

1735. MEETING EMOTIONAL NEEDS IN CHILDHOOD: THE GROUNDWORK OF DEMOCRACY (1947) (Studies of Normal Personality Development) A VI 2 Vassar
30 min. *
Attitude toward people and sense of community responsibility as developed in seven-to-ten-year-old children at home; in school. Child's basic need for acceptance and security; for independence; for assurance of competence and ability to contribute to group. How parents and teachers may help to meet these needs.

1736. MELTING AND REFINING OF MODERN STEELS (1947) A VII AlleLud
23 min.; color. **
Melting practice as applied to high-alloy stainless steels in 50-ton, electric-arc melting furnace. Furnace being charged: electrodes raised, roof raised and swung off, scrap metal-lime charge dumped in. Striking the arc, setting the power; electrode control motors. Liquid steel boiling at 2900 degrees Farhenheit. Oxygen to burn out impurities. Sample tested. Furnace tilted; pouring off, removal of slag. Reducing slag; addition of chromium and electrolytic nickel. Sampling and testing; use of immersion pyrometer. Melt poured into ladle and ingot molds.

1737. MEN AGAINST ROCK (1948) D II
31 min.; color. ** GAR-D
Heavy construction work, involving rock excavation. Grading new section of Highway 40 in Clear Creek canyon (Colorado); construction of dam at south end of Grand Coulee; preparation for distribution of water from western slope of Rockies to eastern plains of Colorado; work on the Electra tunnel, California.

1738. MEN AND MOLDS (1949) A VI 1
35 min. LBFC
Foundry operation from pattern shop through shipping; techniques demonstrated. How good materials and good equipment increase productivity.

1739. MEN OF GLOUCESTER (1949) A IX 1
22 min.; color. ** FORD
Life in a Massachusetts fishing community. Deepsea fishing trip; handling boats and nets. Piety, pageantry, gayety of feast of St. Peter, patron of fishermen. Anxiety of those ashore during storm at sea; home life of fishermen's families.

1740. MEN OF MAINTENANCE (1951) A IX 1
15 min. ** NYCent
Railroad workers who construct and maintain roadbeds, buildings, bridges, and signals; safety methods and procedures.

1741. MEN OF MEDICINE (1945) A II 1 MTFF
15 min. *
Young physician followed through some of the problems facing doctors today. Various points of view as to how benefits of modern medicine can be made available to all.

1742. MEN WHO GROW COTTON (1947) D I 1 USDA
20 min.; also color. *
Importance of cotton to United States economy; problems faced by cottongrowers; measures taken to improve quality while diversifying crops in cotton belt. Future of the crop.

1743. MENTAL DEFECTIVES--GLANDULAR TYPES--MONGOLIAN AND CRETIN A II 1o IO-R
30 min.; color; silent. *
Individual studies of lower grade mental defectives of mongolian and cretin types; low level of intelligence may accompany strong physical development.

1744. MERCHANDIZING FRESH FRUITS AND VEGETABLES (1952) D I 3 USDA
18 min.; color. **
Demonstration of effective retail merchandising practices.

1745. MESENTERIC LYMPHATICS, THEIR CONDUCT AND THE BEHAVIOR OF THEIR VALVES IN THE LIVING RAT (1933) A II 1a WISTAR
15 min. *
Contractility of mesenteric lymphatics in rat. How mesenteric lymphatics in rats and guinea pigs aid in movement of lymph by contracting. (Dr. Richard L. Webb)

1746. MESSAGE TO WOMEN (1945) A II 1 d
20 min.; color; also 35 mm. ** USPHS
Facts about syphilis and gonorrhea. Especially for women's organizations and older teen-age girls.

1747. METAL CRAFT√√(1939) A VII
11 min. * EBF
Skilled craftsmen at work fashioning artistic and useful objects out of pewter and bronze: spun bowl of pewter, hammered bronze bowl, molded pewter candlestick, pewter jewelbox. Shaping, trimming, molding, soldering, raising, burnishing, designing, chasing shown in close-up.

1748. METAL CRYSTALS (1942) C VI
20 min.; silent. ASM
Reel I. Crystalline substances (granite, marble, limestone, sugar candy) and non-crystalline substances (glass, clear and stick candy, rubber, amber, plastics) defined and illustrated. Atom arrangements and space lattices. Solidification of metals from molten state, shown; how crystals form when molten metals freeze. Freezing of impure tin, during solidification; formation of dendrites. Microscopic picture showing chemical action, precipitation of metal dendrites in water solutions; zinc grains in solution of tin salts, producing microscopic tin dendrites. Size of tiny metal crystal compared to size of its atoms. How dendrites grow and branch regularly, start in freezing melts at chance locations, grow until they meet, forming grain boundaries.
Reel II. Grain structures of most metals and alloys visible only under microscope; polishing and etching specimen; its study under microscope.
Reel III. Temperature of solidification. Value of study of cooling characteristics of metals. Delay in cooling during freezing of copper shown by pyrometer in melt and effect of cooling metal on millivoltmeter. Time-temperature relationships; how equilibrium diagram may be plotted; its areas defined, discussed.

1749. METAL MAGIC (1945) C VI
10 min.; ** GE
How metallurgists and industrial research workers have developed metals and metal alloys to meet demands of modern industry. Examples of specific metals to meet specific conditions, illustrated.

1750. METAL WORKING LATHE, THE √ (1941) A VI 1 SOUTH
20 min.; also color.**
Parts of lathe; bed, bedways, headstock, tailstock; lathe operation.

1751. METALS AND NON-METALS (1949) C IV CORONET
10 min.; also color.*
Relationship of laboratory work to general understanding of metals and non-metals. Differences demonstrated. Periodical table of elements.

1752. METHOD OF PROCEDURE, A (1949) A II 4d VETS
(Psychotherapeutic Interviewing Series)
27 min. **
Methods of conducting psychiatrist's interview with patient, analyzed. Four principles of conducting insight therapy: Development of effective patient-doctor relationships; use of goal-directed planning and management; focusing on topics relevant to therapeutic goals; use of minimal activity by doctor.

1753. METHOD OF REPAIR OF THE POSTERIOR TIBIAL NERVE, THE (PMF 5132) (1949) A II 1 a USArmy-P
10 min.; color.**
Repairing long defects in peripheral nerve; bridging large gap in tibial nerve by wide dissection and flexion of knee joint.

1754. METHODS ANALYSIS √ (1951) A VII
(Industrial Organization and Management, Series II) McG-H
10 min.
How management uses methods analysis to reduce production costs by increasing productivity of men and machines. Manufacturing cycle; motion study; motion pictures of job operations; collation and summarization into charts. How employee cooperation may be gained.

1755. METHODS OF PROCESSING PLASTICS MATERIALS (1944) A VI 1 OE
(Plastics--467)
21 min.*
Fundamentals of compression, transfer, extrusion, and injection molding methods; finishing of molded parts fundamentals of lamination; and machining laminated and other plastics products.

1756. MICHIGAN CANOE TRAILS (1942) A IX 1 MichDC
10 1/2 min.; color;
also silent, 15 min.**
Typical canoeing scenes on a number of Michigan's larger streams; on Tahquamenon at greatest falls in Middle West.

1757. MICHIGAN COMMERCIAL FISHING (1941) A IX 1 MichDC
11 min.; color; also silent,
15 min.**
Life of Great Lakes commercial fishermen; setting of nets, lifting, care of catch, work on fishermen's gear, in winter and summer.

1758. MICHIGAN MARSH AND SHORE BIRDS (1942) C II MichDC
10 1/2 min.; color; also silent,
15 min.**
Twelve Michigan marginal water birds, typical of twelve avian families; in natural habitat, on the wing, nesting, raising young, feeding.

1759. MICHIGAN RED FOX (1947) C II
10 1/2 min.; color.** MichDC
Red fox, from puppy to adult; Michigan fox hunt.

1760. MICHIGAN'S PORCUPINE MOUNTAINS STATE PARK (1950) A IX 1 MichDC
10 1/2 min.; color.**
Michigan's fifty-thousand acre mountain forest museum; recreation throughout year.

1761. MICRO INSTRUMENT BALL BEARINGS, THEIR CARE AND HANDLING (1945) — A VII GenM
22 min.**
Care taken in production of micro instrument ball bearings by employees wearing specially treated lintless caps and smocks in spotless, scientifically ventilated workroom with stainless steel workbenches; corps of janitors in constant attendance. How bearings are washed, cleaned, oiled, gauged, inspected, assembled and packed.

1762. MICROFILARIAE OF WUCHERERIA BANCROFTI (4-058) (1947) — A II 1r CDC
4 min.; color also; silent.**
Photomicrography showing apparently purposeless type of activity of microfilariae of W. Bancrofti. Sheath can be seen at intervals as microfilariae whip about. Specimens are diurnally periodic microfilariae from blood of soldier infected in Society Islands.

1763. MICROMETER, THE (1941) (Machine Shop Work--Precision Measurement--2) — A VI 1 OE
15 min.*
Various forms of micrometer; correct reading of barrel and thimble scales; their correct use and care.

1764. MICROORGANISMS IN TEXAS FRESH WATER LAKES (1947) — C II NTSC
35 min.; color; silent.**
Water resources of Texas. Photomicrographs of forms of plants and animals found in lake water. Importance of the various organisms to appearance, taste and smell of water.

1765. MICROSCOPE AND ITS USES (1949) — A IV 5 YAF
10 min.*
Basic parts of microscope explained; its function and use. How to operate microscope; proper care of instrument.

1766. MIDDLE DISTANCES (1947) — A V 2 UWF
10 min.*
Importance of sprinting techniques; ball of foot running; automatic stride; pendulum and bicycle stride; exercises; counter balanced arm action; push drive; jockeying for position.

1767. MIDDLE STATES, U.S.A. √ (1942) — A IX 1 EBF
11 min.*
Contribution of middle states to U.S.A. economy. Agricultural resources, industrial and commercial activity; hub of nation's transportation system. Origin and distribution of population. Diversification of agriculture, industry, commerce.

1768. MIGHTY LABORS (1948) — A VI 5 IndEC
34 min.; color.*
Functions, principles, practices of industrial engineering profession; how industrial engineering improves standard of living in United States. Major areas of specialization: methods engineering, timestudy engineering, job evaluation, wage incentives; also process charting, plant layout.

1769. MIGRANT LABORERS AND THEIR CHILDREN (1947) — A II 3 NYH
18 min.**
New York State's program for care of health and safety of migrant farm laborers and their children. Legal requirements for operating migrant labor camps, general living conditions, sanitation (toilets, food water, waste disposal), medical and nursing care, tuberculosis and venereal disease control, health education and child care programs.

1770. MILK (1940) — D I 2 BAILEY
10 min.*
Production of raw milk on modern dairy farm. (For young children).

1771. MILK √√ (1946) — D I 2 EBF
11 min.*
Story of milk, from cows grazing in pasture to home delivery; milking by hand and by machine; need for careful handling; pasteurization and bottling.

1772. MILK AND PUBLIC HEALTH (M7) (1951) — A II 3 a CDC
11 1/2 min.**
Philosophy, nature, and effects of milk control legislation necessary to insure safety of milk supply to consumer; responsibility of public health workers.

1773. MILK--FOR GOODNESS SAKE (1947) — D I 2 MaViM
18 min.; color.**
How milk is obtained and processed in the Washington, D. C. area; sanitary regulations and precautions; development of farmers' cooperative.

1774. MILK PARADE (1948) — D I 2 MIF
10 min.; color.**
How in the U.S.A. milk is handled from cow to consumer (milking, transportation, weighing, receiving, laboratory testing, pasteurization, bottling, delivery) by modern mechanized methods insuring healthful cleanliness and speed.

1775. MILK PROCESSING (1946) (Small Milk Plant Operation Series) — D I 2 USPHS
18 min.**
Handling and pasteurization of milk by holding process, from time raw milk is received until pasteurized product is bottled and loaded on truck for delivery. Construction and operation of vat-type pasteurizer shown in animation.

1776. MILLING A CIRCULAR T-SLOT √ (1944) — A VI 1 OE
(Machine Shop Work--Vertical Milling Machine--76)
22 min.*
How to mill circular T-Slot in solid metal; use rotary table for continuous circular milling; two-lip end mill; end mill, and T-Slot cutter; dial indicator with test bar in aligning table.

1777. MILLING A HELICAL CUTTER √ (1944) — A VI 1 OE
(Machine Shop Work--Milling Machine--210)
18 min.*
How to mount arbor cutter, and arbor support; mount workpiece between centers; set dividing head for specified number of divisions; position workpiece for first cut; and rough-and finish-mill workpiece.

1778. MILLING A HELICAL GROOVE (1944) — A VI 1 OE
(Machine Shop Work--Vertical Milling Machine--75)
28 min.*
How to mill helical groove in cylindrical shaft on vertical milling machine; lead defined and explained; how to select and set machine gears for milling helical groove with any lead; backlash; dividing head.

1779. MILLING A TEMPLATE (1944) √ — A VI 1 OE
(Machine Shop Work--Milling Machine--207)
17 min. *
How to mount end mill in milling machine spindle; position table and workpiece in relation to cutter; rough-and finish-mill piece; and check for finished dimensions.

1780. MILLING MACHINE, THE (1941) — A VI 1 OE
(Machine Shop Work--Milling Machine--11)
8 min.*
Basic operating principle of milling machine; various types of jobs which can be done on milling machine.

1781. MINT, THE (1940) — A VIII
(Washington Parade Series) — TFC-Columbia
10 1/2 min.*
Coinage plant at San Francisco. Coinage from initial artist's design, lettering on clay model, plaster model made by hand, reproduction of finished bronze replica, transfer to small die, etc., to striking off of coins, mixing of metals, annealing, polishing, checking, counting shown.

1782. MIRACIDIA OF SCHISTOSOMA JAPONICUM (4-060) (1947) — A II 1r CDC
4 min.; also color; silent.**
Photomicrography depicting miracidia of S. Japonicum both inside egg shell and free in fecal concentrate. Absence of egg shell spine and activity of contained miracidia, shown.

1783. MIRACLE IN PARADISE VALLEY (1947) — A II 7 a SINCL
35 min.**
Kinds of accidents which occur daily around home and farm; importance of community action toward accident prevention.

1784. MIRACLE MAKERS (1941) — C VIII
10 min.* — TFC-Warner
Development of water, steam, and electric power; the cyclotron of the University of California. Potential importance of atom as future source of power.

1785. MIRACLE OF HYDRO (1941) — D I 1
(Magic Carpet Series) — TFC-20th Cent-Fox
10 min.*
Significance of Bonneville and Grand Coulee Dams; Columbia River, salmon fishing and logging. Effect of irrigation on agricultural development of semi-arid land.

1786. MIRACLE OF LIVING (TF 8-1474) (1947) — A II 1 d USArmy-UWF
25 min.** P
Emphasizes the importance of family life and the tragedy of broken homes brought about through venereal disease.

1787. MIRACLE OF THE MEADOWS (1940) — D I 2 BAILEY
18 min.*
Pasteurized and certified milk described. Diet and care of cows; sterilization of milking equipment by steam; processes of milking and pasteurization. Estimation of number of bacteria in milk by Breed method, mentioned. Estimation of amount of butter fat shown in detail. Washing of bottles, filling, capping and distribution.

1788. MIRACLE OF TREES (1951) — C III
10 min.; color. — IntFB
How tree buds grow, burst open, release leaves and flowers (time lapse photography).

1789. MODEL HOUSES (1949) — A V 1
(Creative Hands Series No. 1) — IntFB
5 1/2 min.; color.*
Building paper models: church, pioneer village, hotel, etc. Demonstrations explained.

1790. MODERN CHIPPEWA INDIAN (1946) — A IX 1 S-M
11 min.; also color.*
Life of Chippewa Indians on Red Lake reservation. Their contribution to national (U.S.A.) culture.

1791. MODERN COAL MINING (1945) — C VI
20 min.; also silent.** — Goodyear

General overview of modern coal mining, done by electricity. How coal is cut, blasted and loaded by machinery; removal of slate, weighing, dumping of coal; how coal is cleaned, sorted and put into freight cars for shipment. Mechanical operation by electric power vs. old style man and mule power.

1792. MODERN CONTROL OF POULTRY DISEASES (1940-41) — A II 1s ACC-LEDER
40 min.; color; silent.**
Importance of poultry industry. Its annual loss by disease. Fowl-pox: annual vaccination of young birds recommended. Preparation of fowl-pox vaccine; vaccination by brush; by stick. Typical "takes" by each method. Infectious laryngotracheitis: preparation of fowl-laryngotracheitis vaccine; application; typical "take". Pullorum disease: method of testing breeder fowls. Intestinal round-worm infestation; parasites shown, control recommended by practice of sanitation and periodic use of efficient vermifuge.

1793. MODERN HAWAII (1948) — A IX 1
10 min.; also color.* — CORONET
Origin, settlement, industries, culture of Hawaiian islands; relationship of geology and geography, effect upon Hawaiian economy.

1794. MODERN LITHOGRAPHER (1940) — A VII EBF
11 min.*
Work of lithographic artists, processes of duplicating black-and-white and color originals; direct and photo-offset lithography. Importance of commercial photographer and modern printing press in mass production of attractive art prints including advertising.

1795. MODERN MEDICINE MEN (1947) — A VIII USIndS
20 min.; color.
Health problems of Indian population met by United States Indian Service's medical men; medical science carried to rural group; high disease index reduced.

1796. MODERN MILK MARKETING (1949) — D I 2 UMINN
20 min.; color.
Scenes on modern Rochester Dairy Belt farms. Need for dairy cooperative for marketing milk products. Sanitary modern methods of milking; cooling; transporting milk. At receiving point milk checked for odors, bacteria content, and butter fat content. Milk, cooled to 40 degrees Fahrenheit, being sent to Rochester Dairy Plant. Latest equipment for pastuerizing, bottling and delivering milk; condensing and evaporating. Making powdered milk; its many uses.

1797. MODERN MILK--THE STORY OF EVAPORATED MILK (1947) — A III 3 EvapM
24 min. **
Uses of evaporated milk in home; food alue of milk as source of vitamins and minerals needed by human body; how evaporated milk is made from fresh milk.

1798. MODERN POWER FARMING (1948) — D I 3 Soco-V
22 min.; color.**
Variety of power machinery used in farming operations in irrigated section of Colorado.

1799. MODERN SURGERY (1949) — A II 1q MTFF
18 min.*
Resources and techniques of modern hospital; precise competence of modern anesthetists; skill of modern surgeons, based on high traditions of medicine, illustrated in story of Mrs. Conrad's urgent need of an operation.

1800. MODERN TECHNICS FOR INITIATING BLOOD CULTURES (1951) — A II I 1 BecD
14 min.; color.**
Use of vacutainer culture bottle; advantages over method of collecting blood with syringe and transferring it openly to containers with culture medium.

1801. MODERN TECHNICS OF COLLECTING BLOOD SAMPLES (1951) — A II I 1 BecD
30 min.; color. **
Use of vacutainer in collecting blood samples; advantages over other methods. Various methods of taking bloods shown.

1802. MODEST MIRACLE (1942) — A III 3
28 min. — STAND
Discovery of synthesis of Vitamin B^1; importance of eating proper foods for better health.

1803. MOLD AND YEAST (1930) — C II
5 1/2 min.; silent.* — EBF
Specimens of mold on fruit, leather, clothes, and bread provide subjects for photomicrographic shots which illustrate way molds grow, develop, and germinate. Formation of buds and new plants of moldlike yeast, observed.

1804. MOLDING A HORIZONTAL CORED PART (1944) (Foundry Work--Floor Molding--431) — A VI 1 OE
22 min.*
Use of horizontal core; of a split pattern; of chaplets and chaplet supports; how to gate mold for rapid pouring of thin casting; to clean casting.

1805. MOLDING A PART WITH INSERTS √ (1944) (Plastics--470) — A VI 1 OE
10 min.*
How transfer molding differs from compression molding; how to mold a part by transfer method; and coordinate steps of molding cycles.

1806. MOLDING A SIMPLE PART √ (1944) (Plastics--469) 10 min.* — A VI 1 OE

How to close and breathe mold; how and when to open mold; how to prevent pieces from warping; and to coordinate steps of molding cycle.

1807. MOLDING A VALVE BODY (1944) (Foundry Work--Floor Molding--430) 26 min.* — A VI 1 OE

Use of split pattern and multi-part dry sand core; how to gate mold for rapid, uniform distribution of clean metal; locate core and seal core prints.

1808. MOLDING ON A JOLT ROLL-OVER PATTERN DRAW MACHINE (1944) (Foundry Work--Machine Molding--434) 23 min.* — A VI 1 OE

Principles of jolt roll-over pattern draw machine; how to fill drag and jolt it; draw pattern; set drag and cope pattern plates on master mold boards; finish and close mold.

1809. MOLDING ON A JOLT SQUEEZE MACHINE (1944) (Foundry Work--Machine Molding--433) 10 min.* — A VI 1 OE

Principles of jolt squeeze molding machine; how to roll mold; fill cope, apply pressboard; squeeze mold; draw pattern, finish, and close mold.

1810. MOLDING PART HAVING A VERTICAL CORE (1944) (Foundry Work--Bench Molding--425) 19 min.* — A VI 1 OE

How to mold drag and cope halves; gate and riser, instead of cutting; to vent mold to permit escape of core gases; locate vertical core in mold.

1811. MOLDING PART WITH DEEP GREEN SAND CORE (1944) (Foundry Work--Floor Molding--429) 25 min.* — A VI 1 OE

How to use follow board with thin, box-like pattern; locate sprue and watch-up pins; use gaggers; ram and vent green sand core.

1812. MOLDING WITH A GATED PATTERN (1944) (Foundry Work--Bench Molding--427) 11 min.* — A VI 1 OE

What gated pattern is and why used; how match or follow board may simplify parting; how facing sand is prepared and used; how and why some patterns are rapped.

1813. MOLDING WITH A LOOSE PATTERN (Bench) (1944) (Foundry Work--Bench Molding--423) 21 min.* — A VI 1 OE

How to identify and use common bench molder's tools; how molding sand is prepared; how to face pattern; ram and vent mold; roll drag; cut sprue, runner, gates, and risers; swab, rap, and draw pattern; and, by animation, what takes place inside mold during pouring.

1814. MOLDING WITH A LOOSE PATTERN (Floor) (1944) (Foundry Work--Floor Molding--428) 24 min.* — A VI 1 OE

Distinction between bench molding and floor molding; how to face deep pattern; ram drag and walk it off; clamp mold; locate sprues and risers, using spotters; tuck crossbars of large cope.

1815. MOLDING WITH A SPLIT PATTERN (1944) (Foundry Work--Bench Molding--426) 19 min.* — A VI 1 OE

Why split patterns are used; how ramming affects permeability of sand in mold, how to mold drag and cope; reinforce mold with nails; how to patch mold.

1816. MOLDING WITH A THREE-PART FLASK (1944) (Foundry Work--Floor Molding--432) 35 min.* — A VI 1 OE

How to use deep follow board; technique of facing, ramming, and venting deep green sand core; how to use cheek in three-part flask; purpose and method of step-gating.

1817. MOLECULAR THEORY OF MATTER√√(1932) 11 min.* — C VIII EBF

Theory that all matter consists of molecules in motion: molecular aspects of the diffusion of gases in air and vacuum, condensation of steam, evaporation of liquids, transformation of liquids into solids. Force of molecules in motion explained. Brownian movement shown in microscopic photography.

1818. MOLLUSCA 27 min.; color; silent.* — C II IO-R

Reel I. Nudibranch, snail, rapidly burrowing bivalves, scallop, common squid. Detailed study of bivalve foot in action. Tentacles, mantle, cirri, palps, siphons. Representative mollusks.

Reel II. Typical nudibranchs found in tide pools and near surface in open water. Sensory tentacles and adaptive gills; foot,

operculum siphons, tentacles, sensory areas, mantle. Common longneck clam partly buried in sand; action of siphons.

1819. MONARCH BUTTERFLY (1946) C II
11 min.; also color* InstF
Complete life cycle of the Monarch, presented in full color microphoto close-ups. Development of caterpillar into chrysalis; four stages of development from egg to adult butterfly. Available in two editions--scientific with technical narration for high school and college; elementary for elementary school students.

1820. MONEY IN THE BANK (1941) D I 3
19 min.** Sisal
How to make inexpensive silo with wood slab fencing and paper made of asphalt and sisal; step-by-step process in constructing temporary silo. Value of silage.

1821. MOON √ (1936) C I
11 min.* EBF
Various major concepts concerning the moon. Gravitational pull; tides. Phases of moon. Eclipses.

1822. MOOR'S PAVANE, THE (1950) E II
12 1/2 min.; also color.* BF
Variation on theme of "Othello," danced by José Limon and group. Music arranged by Simon Sadoff from Henry Purcell; lines from "Othello," spoken by Bram Nossen.

1823. MORE CORN FOR ALABAMA (1948) D I 1
10 min.; color.** AlaP
Importance of corn to Alabama. Results of scientific research of Alabama Agricultural Experiment Station; how county agents are carrying these results to farmers; how farmers all over state are producing higher yields of corn by following recommendations for preparation of soil, use of fertilizers, selection of adapted hybrids and open-pollinated varieties of corn, spacing and cultivation.

1824. MORE DANGEROUS THAN DYNAMITE (1945) A II 7a
11 min.* S-M
Safety problems inherent in faulty wiring, improper use of electrical appliances, use of gasoline as a cleaning agent, etc.

1825. MORE MONEY FROM WOOL (1948) D I 3
20 min.; color. USIndS
Proper techniques for hand shearing and preparing wool for market (under Indian reservation conditions).

1826. MORE PRODUCTION THROUGH MOTION STUDY (1942) A VI 1
25 min.; color; silent.* PURDUE
Motion study applied (original improved method) to performance of eleven different jobs; increase in production shown to illustrate effects of improvement.

1827. MORNING STAR (1951) D I 2
35 min.; color. EBF
Annual spring migration of a herd of sheep from Salt River Valley to summer pasture in White Mountains (Arizona). How herder cares for flock, day and night. Mogollom Rim safely passed, the herd comes onto home range, safely.

1828. MOSQUITO (1947) √ √ A II 3 b
11 min.* EBF
Life cycle of mosquito; importance of malaria mosquito control. Breeding places; effective methods of combatting the insect.

1829. MOSQUITO, LIFE HISTORY OF (1929) C II
11 min.; silent.* EBF
Life history of yellow fever mosquito. Photomicrographic views of mosquito eggs floating in water; hatching, feeding, swimming, breathing of larva. Metamorphosis from larva to pupa, pupa to mosquito. Adult mosquito biting and feeding.

1830. MOSQUITO-PROOFING FOR MALARIA CONTROL (4-026.1) (1946) A II 3a
10 min.** CDC
Detailed techniques for mosquito-proofing homes; reasons for and benefits of such mosquito-proofing. Detailed instructions for building screen doors; window screening techniques; covering all cracks in floor and walls; screening fireplace. Economic and health benefits of malaria control.

1831. MOSQUITOES (1933) A II 3 a
33 min.; silent; USDA
also 35 mm. **
Life history of mosquito; species that cause malaria and yellow fever. Development of larvae and pupae into full-grown mosquitoes. How to eliminate by attack on breeding places. Flushing stagnant pools, draining, filling swamps, spraying oil. Control measures as applied in New Jersey, Florida, Panama.

1832. MOTHER GOOSE STORIES (1949) A IV 2
10 min.; also color; and silent.* BAILEY
Stepping from her nursery rhyme book, Mother Goose waves a wand and brings to life Little Miss Muffet, Humpty Dumpty, Old Mother Hubbard, Queen of Hearts, etc. (Puppets)

1833. MOTHERHOOD--LIFE's MOST IMPORTANT JOB √ (1944) A II 1h
(Health Series) NMP
10 min.; also 35 mm.*
Importance of motherhood; advisability of regular medical consultation during pregnancy.

Proper diet for expectant mother; clothing; exercise; sleep; baths, etc. Preparations for child's birth; importance of birth registration.

1834. MOTHS (1939) A II 3b
11 min.* EBF
Four developmental stages in life cycle of silk and white-marked tussock moths. Close-up photography of caterpillar emerging from egg, feeding, molting, weaving cocoon: moth emerging from cocoon. Economic importance of moths.

1835. MOTILE SPERMATOZOA AS AN INDEX OF FERTILITY IN MEN (PHASE MICROSCOPY) (1947) C II WISTAR
15 min.*
Views of sperm populations typical of various classifications of fertility in man (phase microscopy). Duration of sperm motility in female tract; progressive spermatozoa after being in uterus forty-two hours. Reduction in sperm count upon repeated coitus demonstrated by actual specimens and summary charts; time for recovery to normal representative level shown. Rate of sperm travel demonstrated. Human ova being attacked and surrounded by sperm. Value of new method of counting as basis for index of fertility. Results of certain experiments relative to male fertility. (Dr. Edmond J. Farris)

1836. MOTILITY IN BACTERIA (1930) A II 1c SAB
6 min.; silent.*
Bacteria, subject to Brownian motion. Cells with hair-like flagella have power of independent movements. Bacteria vary in number of flagella and where flagella are attached to cell: Monotrichous, polar, amphitrichous, peritrichous flagella. (Dr. R. P. Loveland)

1837. MOTION STUDY APPLICATIONS (1942) A VI 1 IO
22 min.*
Most common hand motions defined and illustrated. Old and improved methods compared in filling pinboards, inserting paper in mailing envelopes, folding paper cartons, assembling refrigerator grids.

1838. MOTION STUDY HELPS PLUMBING ASSEMBLY (1944) A VI 1 PURDUE
Projection time as desired (participational; 400 ft.); silent.*
Application of motion economy principles to assembly of plumbing fixtures, illustrated. Before and after pictures of assembly of three fixtures; each original method is followed by questions.

1839. MOTION STUDY IN ACTION (1943) A VI 1 IO
18 min.*
How principles of motion economy can be applied to almost any kind of manual work.

1840. MOTION STUDY IS EVERYBODY'S JOB (1946) A VI 1 PURDUE
30 min.; color; silent.*
That motion study can be applied by anyone, demonstrated. Twelve pairs of before and after pictures, illustrating five degrees (classes) of improvement, each group preceded by items affected in accomplishing the improvement.

1841. MOTION STUDY PRINCIPLES (1941) A VI 1 IO
22 min.*
Eleven principles of motion economy. Three applications to illustrate: bolt and washer assembly; refrigerator-door-knob assembly; folding x-ray film packing paper.

1842. MOTIVATING THE CLASS (1950) A II 4c McG-H.
(Educational Psychology Series)
19 min.
Dramatization to show that adequate motivation is basic to all good teaching; techniques and psychological principles which may be employed to provide good motivation.

1843. MOUNT VERNON IN VIRGINIA (1951) A IX 1 McG-H
22 min.
Mount Vernon as place where many persons lived, worked, visited, discussed needs of American colonies with plantation owner, General George Washington. The house and furnishings as he saw them (c. 1783). Washington as expert farmer, interested in crop rotation, sheep industry, care of orchards. Home life at Mount Vernon.

1844. MOUNTAIN BUILDING W (1935) C VI EBF
11 min.*
Diastrophism vs. gradation; alternating types of earth strata as evidence that crustal movements have been both upward and downward. Faults, anticlines, synclines, geosynclines, unconformities. Lewis overthrust. Earthquake zones. Geologic problems in mining and structural engineering.

1845. MOVEMENTS OF ENDAMOEBA HISTOLYTICA (4-061) (1947) A II 1r CDC
2 min.; color also; silent.**
Photomicrography showing typical motility of, and ingested red cells in, a trophozoite of E. histolytica from clinical case of amebic dysentery.

1846. MOVEMENTS OF SOME COMMON PLANTS C III IO-R
15 min.; monochrome; silent.*
Time-lapse photography shows constant movement of plants due to various external and internal factors: Leaves change position, flowers open and close following succession of night and day; movements caused by changes in temperature and light intensity, produced by turgor changes in special structure called pulvinus located at bases of leaves.

1847. MOZART AND BARRIOS ON SIX STRINGS (1950) — E VII AF
10 min. *
Abel Carlevaro on guitar plays "Variations on Theme by Mozart", by Ferando Sor; and "The Bees", by A. Barrios.

1848. MR. WILLIAMS WAKES UP (1948) — A II 3 NCSBH
25 min. *
Dramatized interpretation of how local health department ministers to the health needs of community.

1849. MULES TO MOTORS (1940) — D I 3 GOODYEAR
10 min. **
Advantages of rubber tires over steel tires on farm equipment (tractors, threshing machines, combines, haywagons, grain flat-bed wagons); reduced power required to move rubber-tired vehicle contrasted with power required to move steel wheeled vehicle.

1850. MULTIPLE SCREENING (1951) — A II 1p COLUM
8 1/2 min.; cartoon. *
What multiple screening is; how used; how it may be even more widely used to combat chronic diseases.

1851. MULTIPLICATION IS EASY (1949) — C VII 1 CORONET
10 min.; also color. *
Procedure of multiplication demonstrated; why this process is important to know; main steps in learning how to multiply.

1852. MUNICIPAL SEWAGE TREATMENT PROCESSES (M6) √ (1951) — A II 3a CDC
13 min. **
How sewage may be treated to prevent stream pollution, menace to health; equipment and processes used.

1853. MUSCULAR DYSTROPHIES, ATROPHIES, AND ALLIED CONDITIONS (1949) — A II 4d SPGood
(Neuropsychiatric Disorders Series)
15 min.; silent. *
Three illustrative groups of cases in which distinctive feature is involvement of body musculature: progressive muscular atrophies, progressive muscular dystrophies, conditions allied to both groups.

1854. MUSCULAR SYSTEM, THE (1952) — A II 1a UWF-GB
(Human Biology Series)
11 min. *
Action of muscles in maintaining body posture in standing and moving positions; arm movement through action of biceps, triceps, and related muscles: position, attachment, function of muscles realted to bones and joints. Human model, diagrams, X-ray photography.

1855. MUSEUM OF SCIENCE AND INDUSTRY (1948) — A I 2 STATE
13 min.
Outstanding exhibits at Chicago museum; model farm, coal mine, miniature railroad and steel rolling mill, autos, ships, machine tools; illustrations of physical laws and principles applied to industry.

1856. MUSIC IN AMERICA (1946) — E VII MTFF
17 min. *
Musical personalities in differing fields of achievement: Singer Marian Anderson, Composer George Gershwin, Bandsman Benny Goodman, Violinist Mischa Elman, Conductor Serge Koussevitsky, and others. How jazz, derived from Negro folk music, has been source for works of serious composers.

1857. MUSICAL INSTRUMENTS: THE STRINGS (1947) — E VII MAHNKE
10 min. *
Construction and performance of violin, viola, cello, and bass viol; how they combine to produce desired tonal effects.

1858. MUSICAL NOTES (1952) (Physics of Sound) — C VIII UWF-GB
12 min. *
Principles of vibrations, such as frequency, amplitude, pitch, quality, demonstrated with notes from string, wind, percussion instruments; length, tension, diameter of strings; quality of notes related to profile of sound waves; principles governing overtones.

1859. MUST IT RUST? (1947) — D I 3 AmHotD
23 min. **
Why farm buildings and implements should be preserved; iron and steel protected from rust. Time-lapse photographic views of iron oxidation. Effect of weathering on galvanized and on untreated iron fittings. Mining, distilling, molding of zinc. Pickling, rinsing, pre-dipping, hot-dipping in zinc; cooling. Microscopic views of the alloying of zinc to base metal. Galvanized products in household and commercial use.

1860. MY CHILD IS BLIND (1951) — A II 6 USArmy-UWF
21 min.
How blind child, given patient treatment and proper training at special nursery school for blind children, is taught to do many things normal children do.

1861. MY NEIGHBORS AND I (1947) — D I 3 UofGA
30 min.; color. **
Early inefficient farm marketing procedures contrasted with operations under a farmers' cooperative. Good crops, from improved soil, demand good grading, packing and marketing of increasing quantity of products. How to organize and finance a cooperative. Board meetings, meetings of members and inspection of books, illustrated.

1862. MYSTERIES OF WATER, THE (1941) C VIII KB
11 min. *
Water as chemical, food, and beverage; as man's friend, as worker, builder, and destroyer.

N

1863. NATIONAL GALLERY OF ART (1946) E VIII STATE
18 min.; color.
Tour of National Gallery of Art in Washington, D.C. art treasures in the collection; architecture of building; facilities for visitors and art students.

1864. NATION'S BUILDING STONE, THE (1947) D II IndLI
20 min. **
How Indiana limestone is quarried; fabrication processes for architectural use. Machines, tools; their uses.

1865. NATURE OF COLOR, THE (1946) C VIII CORONET
10 min.; color. *
Physical phenomena of color explained; applications in nature, art, industry. Newton's explanation of rainbow; reflection, absorption, mixing of color. Color principles applied to printing, photography. Color film.

1866. NATURE OF ENERGY, THE (1949) C VIII CORONET
10 min.; also color. *
Scientific concept of energy clarified; relationships of atomic energy to other forms of energy; data basic to understanding scientific advancements and specialized units of electricity, sound, light, and heat.

1867. NATURE OF LIGHT, THE (1948) C VIII CORONET
10 min.; color. *
Two boys on a fishing trip observe the principles of radiant energy (light)--reflection, refraction--in natural situations; and consider their applications in optics.

1868. NATURE OF SOUND, THE (1947) C VIII CORONET
10 min.; also color. *
Amateur radio operator explains sound vibration to younger boy: how sound travels; media compared; wave length, frequency, reflection, amplitude, pitch, quality.

1869. NATURE'S CAMEO (BRYCE NATIONAL PARK) (1937) A IX 1 FORD
7 min. **
Visit to Bryce National Park; the great cathedral, fairy castle, statue of Queen Victoria (carved by erosion in solid rock).

1870. NAVAJO CHILDREN √√ (1938) A IX 1 EBF
(Children of Many Lands Series)
11 min. *
Navajo boy and girl move from winter to summer home with family household effects, animals; handicrafts, customs.

1871. NAVAJO COUNTRY (1951) A IX 1 UMINN
10 min.; color.
Navajo life as related to their pastoral existence. The people, their homes and their environment. Technique of Navajo rug and blanket weaving; Navajo silver jewelry.

1872. NAVAJO INDIAN (1946) A IX 1 CORONET
10 min.; color. *
Story of a pastoral people. The Navajo shown laboriously carding, dyeing, weaving rugs, taking finished product to trading post to bargain with government representative; toiling in fields; producing silver work. How industrious Navajo has lived for centuries.

1873. NAVAJO INDIANS √√ (1939) A IX 1 EBF
11 min. *
Navajos in native environment; activities and customs, including native dances, marriage ceremony, wedding feast.

1874. NEIGHBORS OF THE LAND (1951) D I 1 OLIVER
24 min.; color. **
What cooperative efforts of farmers of a community can accomplish to conserve soil. Importance of soil to humanity. Farmers study their land, determine its capabilities, and how they may be increased by contour and strip farming on sound cropping plans, with proper use of available equipment.

1875. NERVOUS SYSTEM, THE √√ (1937) C II EBF
(The Human Body, Series 2)
11 min. *
Structure and functions of spinal cord, medulla, midbrain, thalamus, cerebrum. How sense organs receive stimuli; how nerves carry impulses to central system and to muscles. Nervous system structures and responses in various animals compared. Cinemicrography shows nerve cell structure; sound track reproduces nerve impulses as sound.

1876. NEURO-OPHTHALMOLOGICAL CONDITIONS (1944) A II 4d SPGood
(Neuropsychiatric Disorders Series)
11 min.; silent. *
Twelve patients showing unusual ophthalmological conditions; pathology essentially in central nervous system Marcus-Gunn phenomenon, skew deviation; various forms of monocular and binocular nystagmus; Weber's syndrome; unilateral and bilateral Duane's syndrome; myasthenia gravis, before and after prostigmin, neuromyelitis optica; congenital absence of posterior orbital wall with pulsating enophthalmus.

1877. NEUROLYSIS OF PERONEAL NERVE (PMF 5080) (1948)
6 min.; color. **
A II 1q
USArmy-P
Planning and care essential to accomplish proper incision; method of determining choice between neurolysis and neurorrhaphy.

1878. NEUROLYSIS OF ULNAR NERVE IN THE LOWER ARM (PMF 5099) (1949)
8 min.; color. **
A II 1q
USArmy-P
Five year old injury to ulnar nerve, resulting from laceration of right lower arm. Diagnostic findings; surgical procedures; application of physical therapy in treatment of nerve wounds.

1879. NEURORRHAPHY OF MEDIAN AND ULNAR NERVES IN MID-ARM (PMF 5102) (1949)
12 min.; color. **
A II 1q
USArmy-P
Detailed preoperative evaluation of damage to right mid arm traversed by bullet; surgical repair of median and ulnar nerves.

1880. NEURORRHAPHY OF MEDIAN AND ULNAR NERVES IN THE LEFT FOREARM (PMF 5096) (1948)
14 min.; color. **
A II 1q
USArmy-P
Left forearm shell fragment case with severed median and ulnar nerves; complete clinical examination details; procedure to accomplish repair.

1881. NEURORRHAPHY OF ULNAR, NEUROLYSIS OF MEDIAN IN ARM (PMF 5087) (1948)
10 min.; color. **
A II 1q
USArmy-P
Exploration of median and ulnar nerves in case of incomplete paralysis of median and ulnar nerves and complete paralysis of radial nerve; exploration of radial nerve not shown.

1882. NEUROSURGERY IN AN OVERSEAS GENERAL HOSPITAL (PMF 5014) (1946)
44 min.; color. **
A II 1q
USArmy-P
Record of neurosurgical problems encountered in overseas specialty center; various technical phases required for acceptable diagnosis, treatment and post-operative care.

1883. NEW AMERICANS √√ (1944)
19 min.
A IX 1
RKO
Persons who have found refuge in the United States from persecution (Albert Einstein, Thomas Mann, etc.) Story of a typical refugee from time he sets foot on American soil until he becomes a citizen.

1884. NEW DAWN IN AN ANCIENT FOREST, A (1942)
28 min.
D I 5
UofC
Santa Cruz high school boys develop a forest conservation project.

1885. NEW ENGLAND (1944)
12 min. *
A IX 1
MTFF
Symbols and traditions alive in New England; how resourcefulness and energy of New Englanders have diversified region's economy (technological industries: plastics, radar, rubber products). Natural beauties of New England mountains and seacoasts.

1886. NEW ENGLAND: BACKGROUND OF LITERATURE (1950)
10 min.; also color. *
A IV 2
CORONET
Scenes associated with literature of New England, and lives of Emerson, Thoreau, Hawthorne, Alcott, Holmes, Longfellow, Whittier, Bryant; influence upon American culture and concepts of freedom.

1887. NEW ENGLAND FISHERMAN √√ (1938)
11 min. *
A IX 1
EBF
Gloucester fishermen; their picturesque way of earning living; contrasts schooner fishing with Diesel trawler equipped with machine-operated nets.

1888. NEW FIELDS IN THE OLD DOMINION (1949)
23 min.; also color. *
A IX 1
VaDeptE
Leading crops of state of Virginia; what they look like; where they grow. Status of farming enterprises in state; their national importance. How geographical, historical and economic conditions have channeled them into profitable positions they hold.

1889. NEW FRONTIER, A (1949)
13 min.; color.
A IX 1
USIndS
How small group of Indian "pioneers" (Hopi and Navajo) broke from old mores and started new life in area developed in western Arizona in what was formerly barren desert now watered by gravity flow from Colorado River.

1890. NEW FRONTIERS OF MEDICINE (1948)
17 min. *
A II 1
MTFF
Newest developments in medicine: sulfa, penicillin, streptomycin, artificial kidney, brain surgery, RH blood factor and developments in nutrition; progress made in study of heart diseases, cancer, etc. Story of rheumatic heart victim. Work of specialist, research scientist, and family doctor in giving man new hope of relief from sickness and pain.

1890 1/2. NEW HORIZON, A (1946)
20 min.; also 35 mm. **
A II 6
NFIP
Technical film on physical therapy (infantile paralysis). Restricted to medical profession.

1891. NEW SOUTH, THE (1945)
17 min. *
A IX 1
MTFF
Earlier cultural and economic structure shattered by civil war, South has risen from ruin through new experiments in agriculture,

mining, industry; progress to and through a balanced economy.

1892. NEW SUPERVISOR TAKES A LOOK AT HIS JOB, A (1944) A VI 1 OE
(Problems of Supervision-150)
13 min. *
Young workman just made line supervisor, in interview with superintendent is shown that in his new job he must learn to get results by working with people instead of machines.

1893. NEW TOOLS FOR LEARNING (1952) A VI 3 EBF
18 min. *
Use of films and other instructional materials in variety of situations; classroom episodes illustrate effective methods.

1894. NEW WAYS IN FARMING (1945) D I 3
15 min. * MTFF
Farmers' problems. How problems are being met by large-scale factory-style farming; crops scientifically scheduled and cultivated; farm cooperatives. Importance of mechanized farm equipment.

1895. NEW YORK CALLING! (1947) A IX 1
20 min.; color. ** NYCent
Daily life in New York City; people at work, study, play; cultural, educational, and entertainment facilities.

1896. NEW YORK FIRE DEPARTMENT (1950) A IX 1 STATE
8 min.
How the New York Fire Department trains new and old members in latest techniques of fire fighting, service rescue squads, fire boats, etc. Fire fighting shown.

1897. NEW YORK--THE VACATION EMPIRE (1946) A IX 1 NYSCom
26 min.; color. **
Recreation areas and facilities in New York State, including lakes, rivers, mountains, attractions of city and country.

1898. NEWSPAPER STORY (1950) B VI 1
11 min. * EBF
Behind-the-scenes view of newspaper office; traces news story from time reporter first learns of it until it appears in print; importance of newspaper as means of communication.

1899. NIAGARA FALLS (1945) A IX 1
12 min. HFE
Niagara Falls as greatest source of water power on North American continent; geological explanation of its formation.

1900. NIGHT AND BAD WEATHER DRIVING (1949) A II 7d PROG
10 min. *
Safety steps to be taken when driving in bad weather; care of car; safety appliances; how to prevent a skid, etc. Correct passing at night; use of headlights; care of lighting system. Why darkness and bad weather are killers.

1901. NINE BASIC FUNCTIONAL SYSTEMS OF THE HUMAN BODY (1948) C II BRAY
11 min. *
Basic constituents of the human system, in nine groups: Skeletal, muscular, excretory, circulatory, nervous, sensory, digestive, lymphatic, endocrine. Essential facts of each group. How different parts unite in co-ordinated functioning of whole human body.

1902. NITROGEN ABUNDANCE (1945) C III
28 min.; color. BarD
Importance of fertilization, especially of nitrogen in growth and reproduction of field crops (cotton, corn, small grains); comparison of well-fertilized crops with non-fertilized; nutrient deficiency symptoms; role of chlorophyll in plant life; process of photosynthesis. Living plant cells and chloroplasts seen circulating around cell walls; germination and growth of lima bean.

1903. NITROGEN CYCLE, THE (1938) C IV
11 min.; silent. * EBF
Importance of nitrogen compounds to animal and plant growth: comparison size of plants with and without nitrogen compounds. How nitrogen compounds in solution enter roots of plants; how they are removed from soil with harvest. Nitrogen compounds in food stuffs changed to animal tissue in livestock. Fertilization necessary to restore lost nitrogen compounds to soil: commercial fertilizers, animal wastes, plant crops which manufacture nitrogen compounds in root nodules. Part bacteria play in making nitrogen compounds available for plant food, explained. Manufacture of nitrogen compounds from air.

1904. NO VACANCY (1946) C II
5 min.; color. * HOLST
Hermit crab in search of a shell, finds one and moves in. Another hermit crab succeeds in getting shell from him. A third crab appears. These two fight. The first moves into the shell and slips away.

1905. NOMENCLATURE OF SHIPS --FUNDAMENTAL LINES AND SECTIONS (MN 2334a) (1943) A VI 1 USNavy
(Ships and Shipbuilding Skills)
22 min.
Fundamental parts of ship; name, location, function. Lines: base and center; water and buttock; frame lines. Port and starboard, fore and aft, explained. Decks and holds located; how to read blue prints for location.
This film is one of many films and filmstrips constituting the series, on ship nomenclature; pipefitting; shipfitting, sheetmetal work, coppersmithing, silver brazing, blacksmithing,

painting, repair; fireroom operation; sailmaking; rigging, launching, docking, towing, etc.

1906. NORMAL AND ABNORMAL WHITE BLOOD CELLS IN TISSUE CULTURES (1939) — A II 1i WISTAR
16 min.; silent.*
Modes of locomotion of mature and immature neutrophiles, eosinophiles, lymphocytes and monocytes from normal lymph nodes, spleen, bone marrow and blood contrasted with the same cell types from abnormal conditions. Includes macrophages, epithelioid cells and Langhans giant cells from normal tissue and pathogenic conditions.

1907. NORMAL CHILD DEVELOPMENT: JOYCE — A II 4c 10-R
30 min.; color; silent.*
Genetic study of normal pre-school child. Responses to psychological tests of same child at several age levels beginning at 28 months and continuing at intervals to 63 months. Rate and quality of development as shown in non-verbal test reponses without coaching; changes in quality of test response, age being varying factor.

1908. NORTH ATLANTIC TREATY (1949) — B I STATE
14 min.
Signing of North Atlantic Treaty, Washington, D.C., 1949; speeches by national representatives, including President Truman.

1909. NORTHEASTERN STATES, U.S.A.√ (1942) — A IX 1 EBF
11 min.*
Industrial and commercial activities of northeastern states of U.S.A. Topography. Origin and distribution of inhabitants. Mineral and agricultural resources; cultural advantages. Interdependence between this area and rest of Union.

1910. NORTHWEST U.S.A. (1945) — A IX 1 STATE
20 min.
Development of northwest (U.S.A.) from rugged frontier country to industrial and agricultural center of world importance. Views of geographical characteristics; people; industries; irrigation farming; construction of Grand Coulee Dam.

1911. NORTHWESTERN STATES, U.S.A.√√ (1942) — A IX 1 EBF
11 min.*
Northwestern states of U.S.A.: "breadbasket of the nation." Agricultural and mineral resources. Geographical characteristics, population trends, interdependence with rest of nation.

1912. NORTON PARAVESICAL EXTRAPERITONEAL CESARIAN OPERATION (1948) — A II 1q McCall
20 min.; color; silent.
Actual case depicted with prolonged infected labor; treated by a particular extraperitoneal Cesarian technique which obviates necessity of performing difficult embryotomy or Cesarian hysterectomy in profoundly infected patient.

1913. NOSE, THROAT AND EARS, THE √ (1948) — A II 2 McG-H
(Health Education Series)
12 min.
Structure and functions of nose, throat and ears; their proper care. Danger of self-medication.

1914. NOTHING BUT AIR √ (1949) — C VIII InstF
(Experiences in Science Series)
10 min.*
Boy in one day has many experiences with air; learns that air is real, though invisible. Air occupies space, has weight; in motion, has power and serves man in various ways.

1915. NURSE (1949) — A IX 1 EBF
11 min.*
Significance of nurse; typical activities in pediatrics, emergency, maternity wards of hospital.

1916. NURSING (1942) — A VI 5 MAHNKE
11 min.*
Nurses at work in operating rooms, as X-ray helpers, school nurses and in various visiting nursing bureaus. Jobs in hospitals of large industrial plants. Advantages of nursing as profession. Detailed analysis of qualifications and requirements necessary to success.

1917. NURSING, A CAREER OF SERVICE (1949) — A VI 5 UofC
20 min.; color.
What is involved in learning to be a nurse in University of California School of Nursing.

1918. NURSING CARE IN POLIOMYELITIS (1947) — A II 1 1 UofIll
20, 22, 15, 11 min.; color.**
Part I. The Acute Stage. Acutely ill patient enters hospital. Arrangement of bed; applying hot packs; use of pillows, sand bags, footboards, and other devices and techniques.
Part II. Treatment of Spasm. Illustrations of spastic activity in muscles. Detailed administration of hot packs; passive motion. Use of tub as substitute for hot packs.
Part III. Care of the Respirator Patient. Preparation of respirator; introducing patient to respirator; nursing care and techniques. Need of testing various parts of respirator at regular intervals during storage to insure against deterioration.
Part IV. The Convalescent Stage. Application of splints to prevent deformity; use of special pillows to permit patient to read and work in prone position; bed trapeze for exercise; underwater exercise in tanks; respiratory

exercises and administration of various neuromuscular tests to determine degree of recovery before dismissal of patient. Follow-up instructions.

1919. NURSING TECHNIC (1947) A II 1 l
30 min.; color.** CRADLE
Aseptic technic employed to prevent spread of hand-borne infection; various methods used to prevent spread of air-borne infection. Each infant remains in a cubicle as long as it is at The Cradle. Twelve cubicles are contained in a unit. Technics of feeding and diaper nurses shown as well as sterilization and handling of the formulae. Barrier to transmission of air-borne organisms from cubicle to cubicle and from corridor to cubicle, illustrated by test organism Serratia marcescens. Results with four types of barriers presented: (1) air conditioning, (2) air conditioning plus germicidal ceiling lamps, (3) air conditioning plus germicidal light barriers, and (4) mechanical barriers. Decrease in respiratory infections following use of above-mentioned barriers, shown graphically.

1920. NUTRITIONAL ASPECTS OF TROPICAL DISEASE √√ (1950) A II 1 r SQUIBB
30 min.; color.**
Hospitalization of group of patients suffering from one or more deficiency diseases, in most cases accompanied by parasitic infestation; case histories, diets, symptomatology; essentials in treating cases of nutritive failure; patients prior to discharge; importance of continued health-giving diet.

1921. NYU TELEVISION WORKSHOP (1950) B VI 5 STATE
10 min.
Potentialities of television for education, communication, entertainment; present scope of television in these fields. Skills and crafts required in production of television programs. New York University's television classes for technicians, engineers, writers, actors.

O

1922. OBSTETRICAL MANEUVERS ON THE AYERS MANIKIN (1943) A II 1 h Cl-Ad
23 min.; color.*
Obstetrical maneuvers. (Free hand manipulation, and forcep applications); advantage of manikin room where procedures needed in obstretrics may be practiced; delivery of child by maneuver illustrated on manikin.

1923. OCCUPATIONAL THERAPY IN PROBLEMS OF MOTION (PMF 5116B) (1950) A II 1 l USArmy-P
24 min.**
Conditions involving joint limitation, muscle weakness, and incoordination. Occupational therapy. Introduction to simple occupational procedures.

1924. OF PUPS AND PUZZLES (1941) (Passing Parade Series) A II 4c TFC-MGM
11 min.*
Study in individual differences; techniques to be followed in fitting applicants to positions of greatest usefulness.

1925. OHIO TOWN (1946) A IX 1 STATE
20 min.
Activities in small town (U.S.A.) on election day. Democratic procedures by which average American town manages community affairs: townspeople, their homes, occupations, family life, everyday events.

1926. OIL FILMS IN ACTION (1950) C VIII GenM
18 min.; color.**
How oil film pressures vary at different points around circumference of journal; how they vary proportionally with load. How journal speeds and viscosity have no effect on oil film pressures. Action of converging oil films illustrated.

1927. OIL FOR TOMORROW (1944) A VII InterO
30 min.; color.**
Overview of petroleum industry: prospecting methods in swamp lands; location of subterranean oil; drilling operations, including construction of rig; use of mud during drilling; checking for oil; removal of pipe, installation of casing; why control of rate of flow is important; brief description of transportation, refining, uses of oil.

1928. OIL LARVICIDING (4-017) (1945) A II 3a CDC
12 min.; color also.**
Principles and techniques of oil larviciding as mosquito control measure. Advantages and disadvantages of oil as larvicide.

1929. OIL TODAY--POWER TOMORROW (1950) A VII FRITH
16 min.; color.
How oil is obtained, transported, stored. Dangers of fire. Importance of oil on farm, in home, as source of power for transportation.

1930. OLD HICKORY (1939) A IX 1
17 min.; color.* TFC-Warner
Biography of Andrew Jackson from battle of New Orleans in 1812 through career as president of United States.

1931. OLD MACDONALD HAD A FARM (1945) D I 3 ETHYL
28 min.**
How a farmer learned to use modern farm machinery.

1932. OLIVER WENDELL HOLMES (1950) A IX 1 EBF
17 min. *

Biography of Holmes, man of letters, lecturer, author, exponent of the scientific method.

1933. ON GUARD (1938) A II 1d
5 min.; also 35 mm. ** NYH
Dramatic story of application of medical science to saving of human lives from diphtheria; development of toxoid as preventive of disease.

1934. ON OUR OWN (1948) A II 6
14 min.; also 35 mm. ** NFIP
Physical phase of rehabilitation (infantile paralysis) from patient's standpoint; daily activities on crutches, in braces, in wheelchair. Commentary by severely handicapped patient.

1935. ON POINT (1941) A V 1
10 min. ** MichDC
Fox hounds, coon hounds, beagles, bassetts, springers, setters, pointers at work in their several specialties at trials on coon, rabbits, grouse, and pheasants.

1936. ON THE AIR (1937) B VI 4
10 min. JamH
How radio broadcast is put "on the air." Principle of audio wave explained; its conversion in oscillator to carrier wave; transmission from sending antenna; reception. Studio, control room, transmitting station shown. Duties of employees.

1937. ON THE AIR (1945) B VI 4
22 min.; also 35 mm. ** WestH
How radio programs are planned, produced and transmitted through complex circuits of modern high-powered station: writing, rehearsals, timing, etc.; how various sound effects are produced.

1938. ON THE LEVEL (1938) C VIII
9 min. JamH
How mass and inertia affect straight line progress in relation to automobile construction. How, on rough roads, unsprung weight has upward pounding effect; how decreased weight in front axle and inclusion of individual spring suspension keeps pounding at minimum, while wheels take bumping and car remains on level.

1939. ON THE TRAIL OF PILOT ROCK PINE (1948) D I 5
42 min.; color. ** PRLumber
Logging operation in Pacific northwest (U.S.A.). Selective logging. Modern logging camp (John Day River region, Oregon). How new roads are marked and constructed. How trees are evaluated, marked for cutting; how felled, transported, weighed, checked, washed.

1940. ON THESE FOUNDATIONS (1951) D II
16 min.; color. ** Hancock
Construction of modern building, from groundbreaking to completion. Told by "sidewalk superintendent" who traces history of site, its geology; by construction worker who describes erection of building step by step; clerical worker, who points out advantages it offers persons employed there. How architectural improvements have helped efficient operation.

1941. ON TWO WHEELS (1938) A II 7d
14 min. JamH
Juvenile traffic court hears and sentences violators of safe bicycle riding code. Rules of highway safety as applied to bicycles.

1942. ONE AGAINST THE WORLD (1939) A II 1
(Passing Parade Series) TFC-MGM
11 min. *
Ridiculed by his profession and opposed by society, Dr. Ephraim MacDowell performs the world's first major operation on a human being in Danville, Kentucky, on Christmas Day, 1809, so paving way for advancement of modern surgery.

1943. ONE MATCH CAN DO IT (1945) D I 5
11 min. * S-M
How forest fires are sighted, located, reported and fought in western U.S.A. (Rocky Mountains). Interrelationship of fire, deforestation, floods and carelessness with campfires, matches, etc.

1944. ONE OUNCE OF SAFETY (1950) A II 7c
20 min. ** HyTest
Importance of wearing safety shoes at work; special features of safety shoes; compared with ordinary shoes.

1945. ONE PEOPLE (1946) A IX 1
12 min.; color. ADL
Showing how the United States was settled by groups of different nationalities; contributions of these groups to American culture. Cartoon.

1946. ONE THOUSAND DOLLARS FOR RECREATION (1946) A V
12 min.; color. * AI
How community organizations can invest wisely in program to meet basic human need for recreation.

1947. ONE, TWO, THREE, GO! (1941) A II 7d
10 1/2 min. * TFC-MGM
"Our Gang" demonstrates the well-known safety rule: "Stop, Look, and Count Three before crossing the street."

1948. ONE WAY TO BUILD A FLAT (1950) E III
15 min. * UCLA
Every step in building a stage flat (a technique film): squaring the stock, fastening corners with blocks, nailing pattern for triangles and keystones, tacking and gluing cloth to frame.

1949. OPEN T FORMATION (1947) A V 2
10 min.; also color. * GF
The Chicago Bears, the Chicago Cardinals and the Los Angeles Rams (professional football teams) in action. (To be used in coaching squads). Fundamentals and selected plays presented, especially trick and pass plays proven effective in league competition. Each play diagrammed and run in actual major league game against Green Bay Packers.

1950. OPERATION BLOOD BANK (1951) A II 11
14 min.; color. ** CUTT
Techniques for establishing and operating a blood bank. How whole blood is used. How donor gives blood illustrated step by step.

1951. OPERATION FOR VARICOCELE A II 1q
(PMF 5009) (1947) USArmy-P
11 min.; color. **
Case of painful left varicocele involving anterior group of veins; surgical treatment similar to ligation of saphenous veins for varcosities of lower extremity; techniques.

1952. OPERATIONS WILDLIFE C II
(1949) VaDeptE
35 min.; also color. *
Virginia game birds and animals; what they are like, where they live; their place in balance of nature; their practical and economic value to farmer and recreation value to sportsman.

1953. OPERATIVE PROCEDURES A II 1q
FOR POST-POLIO PARALYSIS NFIP
(1948)
50 min.; color. **
Accepted surgical corrections for four post-polio complications: Epiphyseal arrest, knee fusion, Achilles tendon strengthening. For the medical profession only.

1954. OPERATOR AND HIS JOB, THE A VI 1
(1944) OE
(Automobile Operation and Maintenance--Bus Operation--491)
12 min. *
Three prime responsibilities of the bus operator: (1) safety and comfort of passengers and people on streets; (2) maintenance of schedules; (3) courteous, friendly, and helpful attitude toward passengers.

1955. OPERATOR AND HIS A VI 1
PASSENGERS, THE (1944) OE
(Automobile Operation and Maintenance--Bus Operation--492)
18 min. *
Importance of good customer relations; ways of handling problems that may arise (expired transfers, people who miss their stops, the talkative person, getting passengers to move to the rear).

1956. OPERATOR AND SAFETY, THE A II 7d
(1944) OE
(Automobile Operation and Maintenance--Bus Operation--493)
19 min. *
Importance of safety in bus operation; how to operate safely in passing, at intersections, at bus stop zones, under special weather conditions.

1957. ORANGE GROWER√√(1939) D I 1
11 min. * EBF
Orange growing, from planting to shipping. Orange grower and family at work budding, pruning, planting, fertilizing, irrigating, contolling insects and frost; use of machinery and scientific methods.

1958. ORCHARD IRRIGATION (1932) D I 1
25 min.; silent; also 35 mm. ** USDA
Practices in orchard irrigation: Contouring and terracing; use of steep lands for orchards; utilization of shallower soils. Pressure systems and supply water from "stands" built in pipe line at end of tree rows; basin irrigation, adapted to flat slopes where large heads of water are available; overhead or sprinkler method.

1959. ORGANIC DISORDERS OF THE A II 1n
LARYNX (1947) JHMF
24 min.; color; silent. *
Various organic disorders of larynx which affect speech; relation or organic pathology to vocal function. Benign and malignant tumors, paralyses, and inflammatory processes of larynx. (Dr. P.H. Holinger).

1960. ORIGIN AND SYNTHESIS C IV
OF PLASTICS MATERIALS (1944) OE
(Plastics--466)
16 min. *
Organic origin of plastics; resemblance of synthetic compounds to natural substances; synthesis of plastics from natural substances; forms in which plastics are produced; typical plastics products.

1961. ORTHOGRAPHIC PRO- D II
JECTION√ (1947) McG-H
(Engineering Drawing Series)
18 min.
Theory of shape description; practically applied in making and reading of orthographic drawing.

1962. OSMOSIS (1948) C III
21 min.; also color. * TFC
High school student, having difficulty understanding osmosis, discusses problem with policeman friend, who sees in situation a potential detective problem: "How does nourishment get into a cell which is a completely closed organism?" They visit laboratory which does work for Police Department; technician demonstrates osmotic pressure and clarifies questions in student's mind. Operation of osmosis shown in various familiar forms.

1963. OTHER SIDE OF THE FENCE, THE (1947) — A III 3 Phillips
22 min.; color. **
Dr. William A. Albrecht, chairman, Department of Soils, University of Missouri, his story and philosophy; relation of soil to animal and human nutrition. Mineral and vitamin content of various foods explained; remedies for deficiencies.

1964. OUR ANIMAL NEIGHBORS (1946) — C II CORONET
10 min.; also color. *
Familiar small animals: rabbit, grey squirrel, fox squirrel, chipmunk, gopher, deer mouse, meadow mouse, shrew, mole, bat. For small children.

1965. OUR BASIC CIVIL RIGHTS (1950) — A IX 1 CORONET
13 min.; also color. *
Three high school students interview judge to learn about basic civil rights; freedom of speech, press, conscience; Bill of Rights. How civil rights defend the individual, are interrelated, are defended by insuring them to others.

1966. OUR COMING GENERATION (1949) — A I 1 BF
20 min.; color. *
Daily activity in city day nursery (Winifred Wheeler Day Nursery, New York City) where necessary elements of good school exist. How children spend their time, tools they use; signs of emotional behavior and development; their reactions to typical situations, illustrated through study of three children of different ages. Teacher's role in shaping youngster's habits through sympathetic interest.

1967. OUR COMMON FUELS (1947) — C VIII CORONET
10 min.; also color. *
Natural fuels: coal, wood, peat, petroleum, natural gas; manufactured fuels: charcoal, alcohol, coke, coal gas, gasoline, kerosene, benzine. Calorific value, cost, convenience and cleanliness considered. Importance of fuel conservation indicated.

1968. OUR EARTH √√ (1937) — C V EBF
11 min. *
Physical aspects of earth; characteristic activities carried on in various regions; tremendous influence of topography upon lives and economy of people in different parts of world.

1969. OUR FEET (1947) — C II BRAY
11 min. *
Functioning and construction of human foot as means of propulsion of human body and bearer of its weight in unique upright position. Skeleton, ligaments and muscles of foot; their functional purposes. Longitudinal and transverse arches explained. Movements of foot considered in detail: analysis of walking step, mechanism of shifting weight support and propulsion. Influence of sound feet upon general health of individual.

1970. OUR FOOD AND OUR HEALTH (TF 8-1476) (1948) — A III 3 USArmy-UWF
25 min.; color. ** P
Illustrates importance of proper eating habits as factor in maintaining individual health and well being.

1971. OUR FOSTER MOTHER, THE COW (1943) — D I 2 FRITH
11 min.; color.
Modern dairy farm problems: housing, feeding, breeding, grooming, selling cattle, calf care, milking.

1972. OUR INHERITANCE FROM THE PAST (1951) — A IX 2 CORONET
10 min.; also color. *
How past may be found in present; contributions of many peoples, many lands to modern civilization; examples include cultivator, wheel, highway; printing, modern buildings.

1973. OUR JOB TO KNOW (Revised 1947) — A II 1 p AmSH
16 min.; also 35mm. *
Causes, dangers, prevention, diagnosis, treatment of syphilis and gonorrhea.

1974. OUR LIVING CONSTITUTION (1949) — A VIII CORONET
10 min.; also color. *
How the basis of United States government changes and grows to meet needs of times while holding to basic principles. How the Constitution operates to guarantee rights and freedoms and protect interests of the American people as a whole.

1975. OUR LIVING DECLARATION OF INDEPENDENCE (1950) — A IX 1 CORONET
15 min.; also color.
Declaration of Independence as vital force and guide to American living today; illustrations from events in lives of an immigrant and his children give present-day meaning to principles of Declaration.

1976. OUR SHRINKING WORLD (1946) — B VI YAF
11 min. *
Highlights of history of transportation and communication; how achievements in these fields have brought peoples together as time and distance have been overcome.

1977. OUR SOIL RESOURCES (1947) — D I 1 EBF
11 min. *
How soil is formed by physical and chemical disintegration of rock and by decomposition of plant and animal matter. Four soil groups; geographic limits of each in U.S.A. Depletion of soil; techniques for replacing fertility losses and curbing erosion.

1978. OUR STATE CAPITOL (1949) A IX 1
7 min.; also color.* VaDeptE
Tour of Virginia's Capitol Square. Buildings, points of interest; historical background.

1979. OUR TEACHER (1951) A I 1
11 min.; also color.* CORONET
How a primary teacher works, plans, helps her class; how student's attitude helps in working with the teacher, his classmates, and in solving his own problems.

1980. OUR TEACHER, MARY DEAN (1947) A I 1
22 min.; color. FRITH
Intelligent teacher handles group of interested children, challenges their thinking, provides worthwhile school experiences, guides them in constructive, democratic manner. Painting class at work; nature study in park, on field trip; playground activities; committee meeting.

1981. OUR TEETH √√(1941) A II 2
12 min. * KB
Growth, structure, organic vitality of teeth; reasons for oral hygiene.

1982. OUR TOWN IS OUR CLASSROOM (1951) A I 1
21 min. USArmy-UWF
Pupils in school taught about government of their town; instead of learning from books they attend town council meetings, court sessions, meetings between citizens and officials, etc.

1983. OUR WHITE PINE HERITAGE (1948) D I 5
12 min.; also color.* USDA
White pine forests of northeastern U.S.A.; their value as recreation ground; as source of lumber long prized for building purposes; colonial homes built of white pine. How blister rust threatens the timber; importance of control of disease; how effected by eradication of disease-carrying shrubs, inspection, etc.

1984. OUTBREAK (1949) A II 1s
29 min.; color.** USDA
Story of foot-and-mouth disease, from earliest history to recent outbreaks. Outbreak in California, 1929; how checked. How disease was combatted in Mexico (1949).

1985. OVERCOMING FEAR (1950) A II 4c
13 min.; also color.* CORONET
How fear may be overcome by understanding its psychological structure. Boy learns to overcome specific fear of water, enters swimming tryouts.

1986. OVERCOMING WORRY (1950) A II 4c
10 min.; also color.* CORONET
How worry can be overcome; its contagious quality; importance of overcoming worry in its early stages.

1987. OVERHAULING CAMSHAFT ASSEMBLY AND CRANKCASE SECTION (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--270)
19 min.*
How to inspect camshaft and gear case cover assembly parts; inspect and recondition the crankcase section; measure crankcase bearings; inspect, and recondition the remaining parts.

1988. OVERHAULING CRANKSHAFT ASSEMBLY (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--269)
19 min. *
How to clean parts of disassembled engine; inspect and recondition crankshaft assembly parts; determine clearances, check for out-of-round; check the clearances against specifications.

1989. OVERHAULING THE CARBURETOR (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--267)
23 min.*
How to remove carburetor assembly from engine; disassemble, clean, inspect, and reassemble carburetor; check fuel level; and reinstall.

1990. OVULATION, FERTILIZATION, EARLY DEVELOPMENT OF THE MAMMALIAN EGG (1935) C II USDA
24 min.; also 35 mm.**
Time lapse cinematography of ovulation, fertilization, and early development of the mammalian egg.

1991. OXIDATION AND REDUCTION √√ (1932) C IV EBF
11 min. *
Introduction to phenomena of chemical change. Oxidation and reduction, simultaneous; emphasis may vary. Oxyhydrogen torch, blast furnace, thermite process; burning of fuel, common examples of chemical change.

1992. OXY-ACETYLENE FLAME--MASTER OF METALS, THE (1950) A VI 1 IAA
20 min.; color.**
Principles of oxy-acetylene welding torch; types of work it will perform. How acetylene is produced; how combined with oxygen. How combination is regulated in welding torch. Welding, brazing, cutting explained.

1993. OXY-ACETYLENE WELDING LIGHT METAL √(1944) A VI 1 OE
(Machine Shop Work--Welding--190)
21 min. *
How to assemble gas welding outfit; adjust gas pressures; adjust flame; make a butt weld and a T weld in light tubing.

1994. OXYGEN (1947) C IV
10 min.; also color.* CORONET
Characteristics, forms, uses, significance of oxygen and its compounds (technical nomenclature minimized). Electrolysis, oxidation, catalysis.

1995. OYSTER AND VIRGINIA, THE (1948) D III VaDeptE
21 min.; also color.*
Oyster industry of Virginia. Practices necessary to rehabilitate this natural resource. Harvesting, shucking, packing and distribution of oysters.

1996. OZARKS FLOAT, AN (1948) D III
12 min.; color.** MissoC
Float fishing on a Missouri stream.

P

1997. PACIFIC COAST, THE (1946) A IX 1
18 min.* MTFF
Natural beauties and resources of Pacific Coast region (U.S.A.); tourist trade; agriculture; rapid expansion of shipbuilding, aircraft production; steel, synthetics. Problems raised by influx of population.

1998. PACIFIC HALIBUT FISHING (No. 6) (1950) D III F&WS
16 min.; color.**
Fishing vessel leaving from Seattle for fishing grounds off Alaska. Fishing method used in north Pacific halibut fishery.

1999. PAINT FILM, THE (1947) A VI 1
28 min.; color.** NJZinc
Manufacture of paints; difference between good and poor paints; importance of using good paint to preserve wood and metal.

2000. PAINTING AN ABSTRACTION (1950) E VIII EBF
11 min.; color. *
Eliot O'Hara, A.N.A., presents his technique of "abstracting" desired elements for water-color painting; emphasizes careful arrangement of planes and colors in unique pattern. How purpose influences choice and technique.

2001. PAINTING AND DECORATING (1945) A VI 5 MAHNKE
11 min. *
Exterior and interior painting; use of tools of trade, including spray gun. Work on plaster walls; paper hanging, paint mixing. Creation of color harmonies discussed. Disadvantages of trade (chemical fumes, lead poisoning, working in high places). Apprenticeship requirements outlined. Ethics of vocation.

2002. PAINTING REFLECTIONS IN WATER (1947) E VIII EBF
11 min.; color.*
Working in water color, Eliot O'Hara, A.N.A., demonstrates how he achieves literal representation of reflections in water; emphasis on achievement of reflecting vertical lines, oblique lines, and slanting surfaces. How artist differentiates between essential and non-essential detail.

2003. PAINTING WITH SAND: A NAVAJO CEREMONY (1950) A IX 1 EBF
11 min.; color.*
Sand painting, healing rite performed by Navajo medicine man on ailing son; significance of sand painting in tribal life of Navajos.

2004. PAINTINGS AND PLASTICS (1950) E X AF
12 min.; color.*
Designs of transparent plastics; effects produced by illuminating them. How this new medium developed from earlier paintings which deal with motion and light.

2005. PALLIATIVE: ELECTROCOAGULATION OF ADVANCED CANCER OF THE RECTUM (1940) A II 1q TdeC
12 min.; color; silent.*
Technic of electrocoagulation for a selected group of advanced, recurrent cancer of rectum.

2006. PALLIATIVE SURGERY IN ADVANCED CANCER OF THE RECTUM (1940) A II 1q TdeC
12 min.; color; silent.**
Technic of electrocoagulation for palliative treatment of advanced and recurrent cancer of the rectum.

2007. PALMOUR STREET (1950) A II 4c
29 min.* GaDH
Basic concepts of mental health; how parents influence mental and emotional development of children, illustrated in the life of a Negro family, against background of Negro community.

2008. PAPER (1946) A VII
11 min.* EBF
Paper making: from cutting of trees to manufacture of finished sheets of paper.

2009. PAPER MAKING (1941) A VII
20 min.* CORONET
How spruce is felled, shipped downstream to mill, processed and made into paper. Mechanical and chemical steps involved in paper making. Social importance of industry emphasized.

2010. PAPER--PACEMAKER OF PROGRESS (1946) A VII Huyck
26 min.; color.**
Invention of paper-making process (China, c. 105 A.D.); development to first colonial mill (Rittenhouse, Germantown, Pennsylvania;) search for substitute for rags in paper-making; development of paper-making machines. Use of wood pulp and felt. Paper packaging. Other uses of paper in commerce, industry, etc.

2011. PAPER SCULPTURE (1949) A V 1
(Creative Hands Series No. 1) IntFB
5 1/2 min.; color.*
Creating objects of paper; techniques for making a circus, hats, and many other subjects.

2012. PARADE OF INVERTEBRATES, A C II
60 min. ; color; silent.* IO-R
Invertebrates representative of major groups (photography at marine laboratories in Maine and Florida):
Reel I. Blepharisma, Tubularia, Porpita, Physalia, Cyanea, Mnemiopsis, Beroe.
Reel II. Bdelloura, Cristatella, braciopods, Nereis, Cistenides, Echiurus, Thalassema, Piscicola, Branchipus, barnacles, Caprella, Livoneca, Crago.
Reel III. Hippa, Albunaea, Pagurus, Pilumnus, Portunis, Podochela, Ovalipes, Uca.
Reel IV. Neptunea, Yoldia, Astropecten, Luidia, Encope, Mellita, Thyone, Leptosynapta, Cynthia, Boltenia, Styela, Bugula, Amphioxus.

2013. PARAMECIUM (1948) C II
(Zoology Series) UWF-GB
10 min. *
Study of protozoa; features of paramecium shown: pellicle, cilia, nuclei, contractile vacuoles, gullet and food vacuoles. Digestion illustrated in diagrams; movements of paramecium and reactions to external stimuli demonstrated. Conjugation observed, alternated with diagrams showing what happens to nuclei.

2014. PARASITIC PLANT, A C III
(1931) EBF
11 min. *
Characteristics and life cycle of typical parasite plant. Close-up and time-lapse photography show flower, its ovary, seeds and movements. Cinemicrography shows structure of suckers. Animated drawing portrays their parasitic action.

2015. PARIS GREEN LARVICIDING A II 3a
(4-018) (1945) CDC
11 min.; color also.**
Methods of diluting and applying paris green as Anopheles mosquito larvicide in malaria control programs. Hand or power mixers and dusters; principle and structure. How power driven dusters conserve time and manpower when large areas are to be dusted; may be mounted in trucks, boats, or airplanes. Dusting technique with each type shown. Inspection for anopheline adults and larvae to check effectiveness of program.

2016. PARKING THE CAR (1951) A II 7 d
(Driver Education Series) FORD
10 min. **
Techniques for parking car at curb; diagonal parking; parking on hilly street; how to maneuver into and out of limited space between cars, etc.

2017. PARLIAMENTARY PROCE- A VIII
DURES IN ACTION (1941) CORONET
13 1/2 min. *
Proper procedures for seconding motions, amending motions, calling for division of house, rising to point of order, tabling motion, etc., demonstrated in well run high school club.

2018. PARTIAL DENTURES-- A II 1 e 5
BIOMECHANICS (MN-6721) USNavy
(1951)
16 min.; color.
Influence of forces of mastication on design of partial dentures. By dividing parts of partial dentures into bracing, supporting, and retaining elements, important construction details are emphasized.

2019. PARTIAL NEURORRHAPHY A II 1 q
OF THE SCIATIC NERVE IN USArmy-P
THE BUTTOCK (PMF 5104) (1946)
12 min.; color. **
Injury to peroneal component of sciatic nerve, resulting from bullet wound. Precautions and precision essential to proper surgical management.

2020. PARTIAL RESECTION OF A II 1q
THE STOMACH (No. 48) (1946) DG
31 min.; color; silent. **
Operation for duodenal ulcer, from incision to closure of wound; x-rays before and after. (Dr. Samuel F. Marshall)

2021. PARTIES ARE FUN (1950) A VI 4
10 min.; also color. * CORONET
Children plan a party; appropriate games, etc.; how to behave at a party.

2022. PARTNERS IN PRODUCTION A II 7c
(1946) AETNA
13 min.; color. **
Appeal for full and constant cooperation of every plant employee in measures addressed to industrial safety; importance of good housekeeping, suitable clothing, correct lifting methods, care of tools, etc.

2023. PARTS OF NINE (1947) C VII 1
11 min. * YAF
Meaning of the number nine developed through use of concrete material involved in preparation for a birthday party. Nine in serial relation to eight; nine as three groups of three each. Addition and subtraction facts involved in nine. Especially for small children.

2024. PASSENGER TRAIN √√ (1940) A IX 1
11 min. * EBF
Journey on modern Diesel-electric passenger train; duties of train personnel; track signals; comfort and safety of passengers.

2025. PASSING THE KNOW-HOW A VI 3
ALONG (1941) JamH
15 min.

How to qualify experienced workers to break in new men (on job training within industry); seven steps in passing along job information.

2026. PATCHING FABRIC (1944) A VI 1
(Airplane Maintenance--Aircraft Maintenance--250) OE
22 min. *
How to cut out and prepare damaged area; prepare, dope, ribstitch, and finish patch.

2027. PATCHING PLYWOOD (1944) A VI 1
(Airplane Maintenance--Aircraft Maintenance--249) OE
26 min. *
How to prepare damaged area; splay edge of hole; prepare and apply splayed patch; make flush or plug-type patch; make frame or doubler; how to apply flush patch.

2028. PATHOLOGY OF SCHISTOSOMIASIS, MANSONI, THE (4-068) (1948) A II 1 o CDC
2 min.; silent. **
Pathology of chronic schistosomiasis primarily one of ova deposition and walling off of ova. This occurs primarily in three organs: bowel (especially the colon and rectum), liver, and lung. Factors of immunity. Egg deposition in mucosa and submucosa of bowel wall permits diagnosis by biopsy. Fibrosis or cirrhosis of liver, and lung fibrosis with right heart failure are the pathologies.

2029. PATHWAY TO PROGRESS (1952) D I 3
19 min.; color. ** FarmBI
Dramatization of principle on which Ohio Farm Bureau self-help organizations were founded, stressing early history of successful farm co-ops.

2030. PATRICK HENRY OF VIRGINIA (1948) A IX 1 VaDeptE
15 min.; also color. *
Homes of Patrick Henry visited; events recalled. Williamsburg; House of Burgesses; Richmond; Red Hill.

2031. PATROLLING FOR SAFETY (1951) A II 7c VaDeptE
16 min.; also color. *
How safety patrol is set up; how it carries out its function (to protect lives of children). Procedure demonstrated in detail; student patrolmen shown performing their duties at various types of intersections.

2032. PATTY GARMAN, LITTLE HELPER (1946) A VI 2 FRITH
11 min.; color.
Life of little child on five acre suburban farm; family relationships and responsibilities; how family lives together; how child is trained to help family. Habits and behavior of domestic and farm animals: donkey, goats, cows, dogs, chickens, ducks, turkeys; care and treatment of animals.

2033. PATTY LEARNS TO STOP, LOOK, LISTEN (1947) A II 7d FRITH
16 min.; color.
Patty Garman ran out on crowded highway and was hit by car. Ambulance workers treat Patty for shock and render first aid. Legs in splints, they take her to Children's Hospital; bones set and placed in traction. Use of cast, crutches. Recovery.

2034. PAY ATTENTION (1949) A II 6
(Studies in Normal Personality Development) Vassar
30 min. *
Educational and personality problems faced by child who is "hard of hearing." Ways in which parents, teachers and specialists may help him. Pre-school, grade school age and high school children who are hard of hearing; remedial techniques associated with different age levels and different personality characteristics. "Context" methods of speech reading; early use of hearing aids when appropriate.

2035. PEDIATRIC ANESTHESIA √√ (1944) A II 1 b SQUIBB
30 min.; color; silent. **
Anesthetic routes used in infants and children; various methods, often in combination, adapted to nature of particular pediatric problem: inhalation, endotracheal, intravenous, rectal, caudal, spinal anesthesia, abdominal wall block.

2036. PELICAN, TURTLE, AND FISH FROM THE GULF COAST OF FLORIDA C II IO-R
15 min.; color; silent. *
Pelicans; loggerhead turtle; sea horse, squirrel fish, trigger fish, toad fish, cow fish, spiny burrfish.

2037. PEPTIC ULCER √√ (1942) A II 1 q
45 min.; color. ** WYETH
Outstanding diagnostic and management problems peculiar to peptic ulcer.

2038. PERCENTAGE √√ (1949) C VII 1
(Series on Fractions) JHUNT
11 min.
Percentage defined. How to write fraction as percent; how to change common and decimal fractions to percent; how to find percent of a number; how to determine what percent one number is of another.

2039. PERCUSSION GROUP √ (1937) E VII
11 min. * EBF
With full orchestral accompaniment, Howard Barlow demonstrates techniques used in playing tympani, tom-tom, snare drum, bass drum, tambourine, cymbals, chimes, gong, castanets, triangle, bells, xylophone, and celesta; function and characteristic tonal quality of each percussion instrument; contributions of these instruments to symphonic composition.

2040. PERICARDIAL RESECTION (No. 25) (1945) A II 1 q DG
42 min.; color; silent.**
Operation presented in detail for constrictive pericarditis, showing removal of thickened fibrous and calcified pericardium followed by freedom of heart action and good recovery. (Dr. Richard H. Overholt and associates)

2041. PERIODIC CHECKUP, THE (1944) A VI 1 OE
(Automobile Operation and Maintenance--489)
18 min.*
Necessary steps in periodic checkup of car, including tuning up engine, servicing brake system, inspecting steering system, chassis and body.

2042. PERIODIC INSPECTION--AIRPLANE (1944) A VI 1 OE
(Airplane Maintenance-- Preventive Maintenance--282)
17 min.*
Importance and meaning of thoroughness in performing periodic inspection; a complete detailed inspection of aileron as example.

2043. PERIODIC INSPECTION--ENGINE (1944) A VI 1 OE
(Airplane Maintenance--Preventive Maintenance--283)
23 min.*
How to inspect general condition of engine; examine internal parts; check ignition and fuel system; examine propeller; inspect for tightness, security, proper safetying of all parts; and to prepare engine for run-up.

2044. PERIODONTIA (MN--5370) (1948) A II 1 e 7 USNavy
18 min.; color.
Method of diagnosing periodontia; method of treatment with conservative surgery.

2045. PERIPHERAL NERVE SURGERY-SCIATIC NERVE (PMF 5061) (1947) A II 1 q USArmy-P
33 min.; color.**
Management of typical peripheral nerve injury case; follow up treatment of neurosurgical centers.

2046. PERITONEOSCOPY (1941) A II 1 q
15 min.; color; silent.* BURKE
Use of peritoneoscope; normal and certain pathological structures in the abdomen as seen through peritoneoscope; technic of biopsy of suspected neoplasm; certain pathological conditions, such as metastatic implants, uterine fibroids, cholecystitis, cirrhosis of liver, diverticula of sigmoid, acute appendicitis.

2047. PERITONEUM (1941) A II 1 q
(Surgical Anatomy Series) BURKE
15 min.; color; silent.*
Means of facilitating exposure of various intra-abdominal organs by freeing relatively avascular peritoneal attachments. How to mobilize the duodenum for gastroduodenal surgery. Method of removing difficult retrocecal appendix, and of resecting cecum. Dissection on unembalmed cadavers reproduces natural color and condition of tissues involved.

2048. PERMANENT AGRICULTURE (1945) D I 1 IntHar
32 min.**
Advantages and methods of soil conservation: water control, strip farming, gully control, contour farming, crop rotation, use of woodlands, permanent pastures.

2049. PERONEAL NERVE ANASTOMOSIS AT THE KNEE (PMF 5088) (1948) A II 1 q USArmy
7 min.; color.**
Case of peroneal nerve severed at bend of knee with evident foot drop and loss of sensation on dorsum of foot. Technique used to effect repair; necessity for gently curving incision to prevent later keloid formation or contracture, by avoiding flexion creases popliteal space.

2050. PERSPECTIVE DRAWING (1951) E IV UCLA
10 min.*
Basic principles of perspective drawing explained.

2051. PETROLEUM √√ (1947) C VI
11 min.* EBF
Role of petroleum in today's economic and political life; oil as fuel. Exploration by: seismograph to locate oil deposits; drilling, refining. Where world's petroleum resources are located.

2052. PETROLEUM AND ITS USES (1943) A VII SINCL
42 min.**
How petroleum products raise standard of living; examples of petroleum products and uses.

2053. PHARMACIST, THE (1946) A VI 5
11 min.* MAHNKE
Work of professional pharmacist, with drugs and chemicals; compounding of medicines. Jobs in large drug stores, government agencies and in specialized prescription stores. Druggist's many additional responsibilities in smaller stores. Importance of accuracy and dependability; U.S.A. pharmacist must be graduate of school of pharmacy and pass state examination. Opportunities open.

2054. PHEASANT FEVER (1946) A V 2
9 min.; also color. HL
Training a young setter in field work. A day's pheasant shooting, stressing dog work.

2055. PHILMONT ADVENTURE (1948) A I 5 e BSA
40 min.; also color.*
Character and health-building aspects of Boy Scouts outdoor life program as carried out at Philmont Scout Ranch.

2056. PHOTOGRAPHER, THE (1948) E IX
30 min. STATE
Cultural and artistic values associated with photography, revealed in life and work of Edward Weston, outstanding American photographer. Selection of subjects, composition, and developing.

2057. PHOTOGRAPHY (1946) A VI 5
11 min.* MAHNKE
Technical, professional and commercial aspects of photographic industry. Work of illustrative, commercial, news reel, portrait and motion picture photographers. Operation of camera store.

2058. PHOTOSYNTHESIS √√(1950) C III
(Botany Series) UWF-GB
14 min.*
Chemical changes involved in photosynthesis; processes shown by photography and diagram, including formation of carbohydrates in chlorophyll-containing cells, and manufacture of glucose.

2059. PHYSICAL EDUCATION INSTRUCTOR (1950) A I 3 VaDeptE
11 min.*
How a girl's physical education class is organized and conducted (importance of good organization, to physical education program).

2060. PHYSICAL FACILITIES √(1951) A VI 1
(Industrial Organization and Management, Series I) McG-H
10 min.
Factors to be considered in choosing a plant site; how to lay out a plant. Use of flow-charts.

2061. PHYSICAL MEDICINE SERVICE (PMF 5072) (1948) A II 6 USArmy-P
17 min.**
Organizational relationships and professional position of physical medicine service and staff in a hospital; physical medicine of prescription basis; type, frequency, and duration of treatment; exact method of application; special precautions applicable to particular case.

2062. PHYSIOLOGY OF NORMAL MENSTRUATION, THE √√ (1949) A II 1 h SCHER
32 min.; color; also silent.**
Complex endocrine functions in the female responsible for the phenomenon of menstruation. Basic physiology, understanding of which is necessary to intelligent clinical management of disorders of menstruation.

2063. PICKING HOPS (1945) D I 1
20 min.; color; silent.* OREGON
Part I. Overview of harvest: entire process of harvest by hand, from vine to dryer.
Part II. Specific hand techniques for removing hops from vine.

2064. PICKING POINTERS FOR APPLE PICKERS (1942) D I 3 NYSExt
13 min.; color; silent.*
Important steps in properly harvesting apples: twisting, picking only one apple at a time, not squeezing or dropping apples, but laying them carefully in box. Proper use of ladders; how to fill boxes properly.

2065. PICKING STRAWBERRIES (1945) D I 1 OREGON
15 min.; silent.*
How to pick strawberries correctly, demonstrated in detail. How to fill carriers with hallocks; how to pick without injuring fruit. Two methods explained: with hulls, without hulls. Cull berries explained. How carriers are checked.

2066. PICKING TOMATOES FOR CANNING (1944) D I 1 NYSExt
15 min.; color; silent.*
Rules for picking tomatoes for canning; how to tell when tomatoes should be left for additional ripening; tests for ripeness.

2067. PICTURE IN YOUR MIND (1949) B II INTF
16 min.; color.*
Origins of group prejudice; reasons why every group, tribe, or nation thinks its way of life is superior to other man's mode of living. Individual viewer urged to re-examine his own mind to see whether his mental picture of other man is realistic or distorted.

2068. PICTURE-MAKING AT THE GANG AGE (1951) A I 1 IntFB
(Creative Hands Series No. 2)
6 min.; color.*
Children make original and varied compositions related to their interests (5th and 6th graders); real skill shown. How to guide towards improvement without discouraging creativeness.

2069. PIG TALES (1944) D I 2
11 min.; color. FRITH
Modern scientific hog raising; care taken by farmers to breed and fatten healthy stock. Curly, a baby pig, and his pal, Pinky, grow up in the picture; they run away from home, fight, eat, bathe, acquire rings in their noses, and take prizes at County Fair.

2070. PINOCYTOSIS--DRINKING BY CELLS (1936) A II 1 o WISTAR
11 min.; silent.*
Shows one mouse macrophaze and two mouse sarcoma cells entrapping globules of fluid by

their ruffle-like pseudopods. Pinocytosed globules, like phagocytosed granules, are moved toward center of cell by contractile gradient of endoplasm. Small globules frequently fuse.

2071. PINTA (PMF 5071) (1948) A II 1 r
18 min.; color.** USArmy-P
Geographical areas where disease is prevalent; environmental conditions; diagnosis; spirochetal etiology; good results with arsenical and penicillin therapy.

2072. PIONEER HOME (1948) A IX 1
10 min.; also color.* CORONET
Physical surroundings, home furnishings, arts, crafts, simple pleasures that characterized pioneer American home.

2073. PIONEERS OF THE PLAINS √ A IX 1
(1941) EBF
11 min.*
Pioneer family establishes new home on midwestern (U.S.A.) plains c. 1870. Journey westward by ox-drawn wagon from Illinois; building sod house. Plowing, harvesting, gathering fuel, preparing meals.

2074. PIPE FABRICATION WITH JIGS (1944) A VI 1
(Shipbuilding--Pipefitting--122) OE
22 min.*
Purpose of jig; how to plan layout; lay out and assemble targets for a jig, set targets and hangers, using pipe section as template, and fabricate pipe on jib.

2075. PIPELINE LICKS THE WEATHER, A (1945) D II
20 min.; color.** SoCalG
Utilization of natural gas reservoir; laying of 100 mile oil pipeline to supply increased needs of Los Angeles, California; history and geological formation of La Goleta oil field where it was proposed to utilize natural gas bed as artificial gas reservoir.

2076. PIPELINE TO THE CLOUDS A II 3 a
(1949) GE
25 min.; color.**
Dramatized story concerning water supply in an American community: sources of water, reasons for shortages; how shortages are being met. What citizens can do to assure abundant supply in future.

2077. PIPEVINE SWALLOWTAIL BUTTERFLY (1947) C II
11 min. (elementary) InstF
22 min. (scientific); also color.*
Intimate, metamorphic phases in development of pipevine swallowtail butterfly. Stages from egg through larva and chrysalis to adult.

2078. PITCH BUTTONING AND BLOCKING--SPHERICAL SURFACES √ (1944) A VI 1
(Machine Shop Work--Optical Craftsmanship--182) OE
30 min.*
How to warm lenses and pitch for buttoning; apply pitch to warm lenses; fit form tool on lens surface; block lenses in metal sheet preparatory to fine grinding.

2079. PLACE IN THE SUN, A (1950) A I 1
25 min.; color. JrLeague
How in special public schools the State of California educates children afflicted with cerebral palsy. Cerebral palsy defined; causes; modern treatment illustrated.

2080. PLACER GOLD (1940) A IX 1
(Californiana Series) BARR
11 min.; also color.
Use of pioneer tools in search for and recovery of gold from placer gravels. Gold pan, handmade rocker, long tom made from log, sluice box. Miners of 1849 (year of Gold Rush to California).

2081. PLACING THE RIGHT MAN ON THE JOB (1944) A VI 1
(Problems of Supervision--156) OE
13 min.*
Several workers who are misfits on jobs they are doing are reassigned to different jobs, resulting in happier workers and increased production.

2082. PLAGUE (1942) A II 1d
35 min.; color; silent.** UofC
Special laboratory for plague research at University of California; special isolation rooms to handle infected and infective fleas; pit for breeding rodents; laboratory technic of flea culture. Importance of knowledge of bionomics of fleas in study of plague epidemiology. Field technic illustrated by investigation of severe plague epizootic in Kern County, California, in 1941. Development of pasteurella pestis block in gut of flea (diamanus montanus). Blood smear from infected mouse with numerous bacilli. Normal fleas with and without blood meal. Rodent population at Bass Lake, California; map of California indicating plague areas, Jan. 1, 1940 to Dec. 31, 1941. Table listing rodents known to suffer from spontaneous plague.

2083. PLAGUE CONTROL (MN--4049) (1945) A II 1d
25 min.; color. USNavy
Problems created by plague. Types, carriers and characteristics of plague; control and preventive measures.

2084. PLAIN FACTS √ (Revised 1947) A II 1p
11 min.; also 35 mm.* AmSH
Effects of syphilis and gonorrhea; how they cripple and destroy human health; how they spread; how they may be diagnosed, treated and cured.

2085. PLAIN INDEXING AND CUTTING A SPUR GEAR √ (1941) A VI 1 OE
(Machine Shop Work--Milling Machine--15)
26 min. *
Principle and operation of dividing head; application in cutting of eight-pitch spur gear with 36 teeth.

2086. PLAIN TURNING √ √ (1941) A VI 1
20 min.; also color. ** SOUTH
Grinding of various types of cutter bits; methods of using them in engine lathe.

2087. PLANING A DOVETAIL SLIDE √ (1944) A VI 1 OE
(Machine Shop Work--Planer--67)
28 min. *
How to set up workpiece, cutting tools, and machine; make rough cuts in clearance slot; make finish cuts in clearance slot; angle cuts.

2088. PLANING A FLAT SURFACE (1944) A VI 1 OE
(Machine Shop Work--Planer--66)
22 min. *
Function of planer; how to mount workpiece; set tool and table for cut; make first and second roughing cut and first and second finishing cut.

2089. PLANING ROUGH SURFACES TO DIMENSIONS √ (1944) A VI 1 OE
(Woodworking--Single Face Surfacer--301)
17 min. *
How to adjust table for desired thickness; set feed rolls for proper speed; feed with grain; and surface short pieces and glued stock.

2090. PLANNING AND LAYING OUT WORK (1944) A VI 1 OE
(Problems of Supervision--151)
10 min. *
Dramatized incidents point up importance of careful planning before starting job. Serious results of poor or no planning.

2091. PLANNING FOR GOOD EATING √ √ (1946) A III 3 I. I-A. A.
10 min.; color.
Importance of balanced diet; how a variety of foods may be produced on small plot of land.

2092. PLANNING TO PROSPER (1945) D I 1 AllisC
25 min.; color. **
Erosion illustrated; and explained. Soil conservation recommended: soil analysis, fertilization, contour farming, strip cropping, terracing of crop rotations. Importance of planning.

2093. PLANT GROWTH √ √ (1939) C III
11 min. * EBF
Life cycle of pea plant. Time-lapse, close-up and cinemicrography show seed germination, growth, opening of flower, floral parts, cross-pollination, streaming of protoplasm in pollen tubes. Animated drawings illustrate process of fertilization.

2094. PLANT SURVIVAL (1950) C III
(Botany Series) UWF-GB
10 min. *
Self-protective devices used in various stages of plant growth; of roots, seeds, buds, leaves, flowers; defenses of leaves and flowers against damage by rain and animals.

2095. PLANT TRAPS (1931) C III
11 min. * EBF
Unique characteristics of two representative carniverous plants (pitcher and sum dew plants). Microscopic, close-up, and time-lapse photography show plants' action.

2096. PLANTATION SYSTEM IN SOUTHERN LIFE (U. S. A.) (1950) A IX 1 CORONET
10 min.; also color. *
Organization of a plantation; economy dominated by cotton; strict social structure. Effect of civil war.

2097. PLANTER OF COLONIAL VIRGINIA √ (1940) A IX 1 EBF
11 min. *
Physical and social environment in Virginia colony immediately before Revolutionary War.

2098. PLASTER CASTS (TF 8-2080) (1948) A VI 1 USArmy-P
37 min. **
Steps in preparation of plaster casts; importance of plaster technician's duty.

2099. PLASTIC ART √ √ (1939) E X
11 min. * EBF
Sculptor executes bronze statuary group: preliminary sketches, building rough figures on wire skeletons from living models. How large-sized group is reproduced on small scale and this is finally recast in bronze.

2100. PLASTIC REPAIR OF THIGH STUMP (PMF 5023) (1946) A II 1 q USArmy-P
9 min.; color; silent. **
Type of plastic repair utilized on occasion where certain stump anatomical factors limit operator's choice.

2101. PLASTICS (1945) C VIII
15 min. * YAF
Development of celluloid (the first plastic), lucite and nylon compounds. Steps in manufacture of plastics and growth of plastics industry.

2102. PLAY BALL (1950) A V 2
13 min. RKO
Graphical review of game of baseball in the

United States. How "farm system" operates in addition to spring training. Championship game. Baseball's Hall of Fame (Cooperstown, New York).

2103. PLAY BALL, SON! (1946) A V 2 YAF
17 min. *
Group of 14 year old boys demonstrates teaching in Bert V. Dunne's book on baseball. Correct techniques of play at all positions on the team, emphasis on principles of hitting and pitching.

2104. PLAY CHAMPIONSHIP BASKETBALL (1945) A V 2 ASSOC
62 min. *
Series of six integrated films on (1) Individual Offense; (2) Individual Defense; (3) Team Styles of Play; (4) Iba's Offensive Plays and Variations; (5) Defense Styles; (6) Drills. Demonstrations explain shooting, passing, dribbling, tapping, screening, blocking, use of arms and hands, defense on jump, guarding the shooter, infractions, drills, types of plays, and all major phases of court play. Promotes spectator understanding.

2105. PLAY IN THE SNOW (1945) A V 2 EBF
11 min. *
Three small children enjoy various games in the snow; learn safety rules and good sportsmanship.

2106. PLAY IS OUR BUSINESS √√ (1945) A V 2 PSA
20 min. *
Typical American children (5 through 12 years of age, of all races and creeds) in urban background working and playing together, learning to be good citizens. Supervised play activities, after school in winter and all day in summer. Program portrayed is sponsored by Play Schools Association in cooperation with New York City Board of Education's Department of Community Education, settlements and other neighborhood groups participating as affiliated members.

2107. PLAY VOLLEYBALL. (1944) A V 2 ASSOC
18 min. *
Expert instruction in how to play volleyball.

2108. PLAYGROUND SAFETY (1947) A II 7b CORONET
10 min.; also color. *
Rules for playground safety dramatized: (1) Be sure play space is safe; (2) Keep out of way of other players; (3) Learn how to play more skillfully.

2109. PLAYTOWN, U. S. A. (1946) A V AI
25 min.; color. *
How a community can organize to promote community-wide, all-age, year-round recreation.

2110. PLUMBING (1945) A VI 5 MAHNKE
11 min. *
Roughing in water pipes in walls and floors of building under construction; cutting pipes to proper lengths and threading them before putting in place; how soil and vent pipes are placed and joints properly sealed. Tools of craft, i.e. stilson wrench, threading equipment, packing tools, lead pots, torches; wiping a joint. How various skills of the plumber determine his advancement. Requirements for apprenticeship outlined; studies pertinent to craft.

2111. PLUNGE CUT GRINDING √ (1944) A VI 1 OE
(Machine Shop Work--Center-Type Grinder--83)
15 min. *
How to mount bushing on mandrel; set dial snap gage for production grinding of bushings; rough and finish-grind bushing; importance of rhythm in production grinding.

2112. PNEUMONIA (1941) A II 1 1 EBF
11 min.; silent. *
Death rate of pneumonia, small pox, diptheria, typhoid fever compared. Pneumococci; their spread illustrated by unprotected sneezing in crowd. Types of persons readily susceptible to pneumonia (elderly people, alcoholics, persons exposed to weather, fatigue, etc.) Diagnosis and treatment illustrated by typical case. Importance of (1) calling physician, (2) early diagnosis and typing, (3) proper drugs and serum, (4) proper diet, (5) energy saving devices.

2113. POINTERS FOR POTATO PICKERS (1944) D I 1 NYSExt
6 min.; silent. *
Time-saving methods of efficient potato picker; analysis of motions.

2114. POLE DRAINAGE (4-033) (1946) A II 3a CDC
7 min.; also color. **
Use of pole drains in malaria control drainage operations. How seepage of water may spoil land for use and provide dangerous mosquito-breeding areas. Pole drainage as means of returning land to productivity. Boxing out ditch, cutting and carrying poles, laying cross blocks as foundation, laying poles longitudinally so that their cross section is triangular, laying brush filler on top of poles, and back filling. Special treatment required at intersections and at outfalls where pole drains intersect open drainage ditches.

2115. POLE VAULT (1947) A V 2 UWF
10 min. *
Basic vaulting principles; importance of exercises; running action; proper grip; selection of pole; take-off; western and eastern styles; slotting; novice training.

2116. POLE VAULT, THE (1945) (Track and Field Series, III) 7 min. * — A V 2 — CORONET

Preparation of pole, determination of length of run, the approach, push-up, final turn. Technique of vault examined from different angles, emphasizing coordination and timing.

2117. POLICEMAN √ (1940) 11 min. * — A IX 1 — EBF

Daily activities of typical city policeman. Radio station at headquarters; cruise car, policewoman, motorcycle officers, patrol wagon, emergency car. Policeman directs traffic, rescues cat caught in tree, finds lost child, arrests reckless driver.

2118. POLIOMYELITIS IN MONKEYS AND RODENTS (1942) 45 min.; silent. — A II 1d — COLUM

Review of work of Landsteiner and Popper; Armstrong; Trask, Vignec, Paul. Technic for transmitting poliomyelitis virus from monkey to monkey; to cotton rats and white mice. Adaptation of the SK strain (original records). General properties of the murine strain of the virus.

2119. POLISHING--SPHERICAL SURFACES √ (1944) (Machine Shop Work--Optical Craftsmanship--184) 28 min. * — A VI 1 — OE

How to make concave or convex polishing shell; trim polishing shell to size and cut breathers; set up and use polishing machine; make Newton's ring check with test glass; correct for hollow condition and high condition.

2120. POLYGONS √ √ (1949) (Practical Geometry Series) 12 min. * — C VII 3 — KB

Real-life polygons. Polygon defined; ideas of convex and concave clarified. Inscribed circle and circumscribed circle of regular polygon described. Theorems.

2121. POND INSECTS (1931) 11 min. * — C II — EBF

Life cycles of diving beetle, may-fly and dragon-fly contrasted. Underwater close-up photography used. Relationship of these insects to others, to fish, water-fowl and birds in constant struggle for survival.

2122. POND LIFE (1950) 11 min. * — C II — EBF

Pond as an organized community in which plant and animal life are interdependent; representative animals at various water levels.

2123. PONY EXPRESS (1943) (Californiana Series) 11 min.; also color. — A IX 1 — BARR

Drama of "pony express" portrayed as letter is followed from mailing at "pony" station in St. Joseph, Missouri, to delivery at Sacramento, California. How letters were wrapped in oiled silk, placed in cantina of mochila, carried on horseback, transferred from rider to rider over 2000 miles of wild country.

2124. PROCELAIN PROTECTED SURFACE WIRING √ (1944) (Electrical Work--Wiring--376) 19 min. * — A VI 1 — OE

How to make electrical entrance to building; install wiring and porcelain fittings; support and insulate wires; prepare and connect wires for service.

2125. PORTRAIT OF AN INDUSTRY (1946) 33 min.; color. ** — A VII — ACC-Calco

William Perkins, his laboratory experiments and creation of first artificial dye. Importance of color in modern life (in textiles, graphic arts, food packages and labels, paints, etc.) A modern dye-making plant; manufacturing processes. Importance of research.

2126. POSTURAL ADJUSTMENTS OF THE INFANT (1942) 8 min.; silent. * — A II 4c — IntFB

Neuro-muscular development illustrated by postural adjustments of infant when held by feet with head hanging down. Pictures taken periodically during first 2 1/2 years.

2127. POSTURE AND EXERCISE √ √ (1941) (The Human Body Series 2) 11 min. * — A II 6 — EBF

Muscles analyzed (motor units, cells, neurons); how muscles function; physiology of exercise. Tonus. Corrective exercises. Physical efficiency dependent on peripheral blood circulation.

2128. POSTURE AND LOCOMOTION (1934) 10 min. * — A II 4 c — EBF

Infant development from helplessness to controlled locomotion.

2129. POSTURE HABITS (1947) 10 min.; also color. * — A II 6 — CORONET

Posture consciousness developed and cultivation of good posture habits motivated in growing child. Standing, walking, and sitting positions treated using puppet to explain bodily structure and showing scrapbook examples of good posture among adults. Why posture is important to everyone.

2130. POTOMAC DIE HOT STEELS (1948) 20 min. ** — A VI 1 — AlleLud

Properties and uses of hot forming die steel. Chemical analysis of Potomac steel; properties contributed by each ingredient. Hot hardness test, hot tensile strength, hot impact test;

toughness as it applies to steel. Toughness, abrasion resistance, hot hardness in dies used in forges and extrusion machines. Functions of parts of extrusion machine. Hardness for parts of extrusion press recommended for different metals (aluminum, magnesium, brass, copper). Steel properties needed in die-casting dies; properties of metals required by different procedures of metalworking machines.

2131. POTTER'S WHEEL, THE (1950) A V 1 AL-MO
10 min.; also color.*
Richard Petterson guides pupil in proper method of "throwing" on potter's wheel. Two basic shapes formed: small pitcher with handle and applique, and larger pitcher with handle. Development shown in detail: centering, turning, lifting, trimming, best method of pulling a spout and making a handle. Bisque-firing, glazing, and glaze-firing. Close-ups of operations and use of proper tools.

2132. POTTERY MAKING √√ (1939) A VII EBF
11 min.*
Pottery making by four different methods demonstrated: a vase formed on potter's wheel; bowl fashioned with coils of clay; vase made in plaster mold; angular table piece assembled from slabs. Drying, firing, glazing, glaze-firing.

2133. POULTRY ON THE FARM √√ (1937) D I 2 EBF
11 min.*
Elementary study of characteristics and habits of farm poultry; poultry sounds reproduced.

2134. POULTRY RAISING (1946) A VI 5 MAHNKE
11 min.*
Difference between raising chickens as sideline and as business. Brooder and battery operations shown. Flocks for egg production; for meat. Qualifications and education necessary; problems of vocation presented. Modern poultry raising equipment shown: feeders, watering dishes, brooder coops, trap nests, incubators. Egg sorting and grading.

2135. POWDER METALLURGY (1945) C VI OE
(Engineering--Metallurgy--346, 347)
19, 15 min.*
Part I. Principles of powder metallurgy--powder, pressure, heat; five major industrial applications of powder metallurgy; laboratory process of combining silver and nickel powders. Part II. Manufacturing process by which metal powders are fabricated into porous bronze bearings and impregnated with oil.

2136. POWER (1936) C VIII JamH
9 min.
How energy is harnessed in modern gasoline engine and automobile: Four stroke cycle internal combustion engine. How only power stroke drives car forward; why flywheel is necessary; why four or more cylinders are needed to make power flow smoothly. How explosion of gasoline-air mixture in cylinder forces connecting rod down to turn crankshaft; how force travels through transmission, along propeller shaft, through differential and rear axle and turns wheels.

2137. POWER BENDING CONDUIT √ (1944) A VI 1 OE
(Electrical Work--Motor Control--382)
17 min.*
How to assemble and operate floor bender and portable bender; make a 45° bend in 3" conduit; make offset in 1 1/2" conduit; and in conduit already installed.

2138. POWER BY WHICH WE LIVE (1947) C VIII GE
15 min.; color.**
Importance of the turbine engine to modern living.

2139. POWER FOR PROTECTION (1951) D I 1 CateT
23 min.; color.**
Use of power equipment in terracing, pond building, land clearing, and deep tillage.

2140. POWER THAT BRINGS YOU OIL (1947) A VII IntHar
20 min.; color.**
Steps in oil production: exploration, extraction, transportation, refining, distribution.

2141. PRAYING MANTIS (1945) C II HFE
12 min.
Intimate study of praying mantis (micro-cinematography).

2142. PRECANCER DIAGNOSIS OF THE CERVIX BY CYTOLOGY √ (1947) A II 1o C1-Ad
20 min.; color.*
Selective cytology technic of uterine cancer diagnosis. Technic of taking specimens; staining technic shown. Photomicrographs of stained smears, scraping and confirmatory biopsies.

2143. PRECISELY SO (Revised 1949) A VI 1 GenM
18 min.**
How precision measurements are made in industry; nontechnical explanation of precision instruments used in measuring speed of electric spark, flexibility of steel, minute weights, salt content of water; importance of precision measurement to mass production.

2144. PRECISION GAGE BLOCKS √ (1944) A VI 1 OE
(Machine Shop Work--Precision Measurement--49)
18 min.*
How to calculate stack of gage blocks; how to clean and assemble blocks; various uses of gage blocks.

2145. PREFLIGHT INSPECTION--AIRPLANE (1944) A VI 1 OE
(Airplane Maintenance--Preventive Maintenance--280)
17 min.*
Necessity for careful and thorough inspection; how to use "circle method" to give complete and systematic inspection; how each part is inspected.

2146. PREFLIGHT INSPECTION--ENGINE (1944) A VI 1 OE
(Airplane Maintenance--Preventive Maintenance--281)
13 min.*
Importance of continuous preventive maintenance in keeping aircraft engine airworthy; how to conduct engine run-up; inspector's responsibility in signing preflight inspection form.

2147. PREPARATION AND INSERTION OF TANTALUM PLATE, THE (PFM 5030) (1946) A II 1q USArmy-P
30 min.; color.**
Specific exemplifications of preliminaries essential to preparation and placement of tantalum plate; step by step explanations and descriptions of salient features.

2148. PREPARATION AND STAINING OF BLOOD FILMS (4-007) A II 1r CDC-UWF
17 min.; color.**
Proper methods of making, labeling, staining blood films for malaria diagnosis: sharp stylet; rolling wrist motion stab into clean finger tip; rotary smearing of blood for thick film; quick spread of droplet at other end of slide for thin smear. How to prepare Giemsa stain stock solution; buffered water for diluting it; how to stain films in final solution. How to recognize well prepared, well stained slides. Dehemoglobination followed by Wright's stain. Mass staining techniques.

2149. PREPARATION OF TEACHERS (1948) A VI 3 STATE
18 min.
Aspects of teacher education related to understanding children, providing for individual pupil differences and developing desirable personal traits in teachers. Dramatized around two students studying in laboratory school.

2150. PREPARING A CUPOLA FOR CHARGING (1944) A VI 1 OE
(Foundry Work--Machine Molding--436)
21 min.*
How to recognize end of heat; procedures for dropping bottom; for preparing cupola for next heat.

2151. PREPARING AND SETTING A KEEL BLOCK AND BOTTOM CRADLE (1942) A VI 1 OE
(Shipbuilding--Shipfitting--24)
18 min.*
Basic lines used in ship construction; function of keel track and bottom cradle; setting keel block to centerline, with correct declivity.

2152. PREPARING OLD BUILDINGS FOR WIRING (1944) A VI 1 OE
(Electrical Work--Wiring--378)
21 min.*
How to plan wiring paths, visualizing obstructions; and prepare paths for wiring runs.

2153. PREPARING THE CHARGE AND LOADING THE MOLD (1944) A VI 1 OE
(Plastics--468)
11 min.*
How to set up press; how to weight and preheat charge; clean, lubricate and load mold.

2154. PREPARING TO IRRIGATE (1932) D I 1 USDA
15 min.; silent; also 35 mm. **
Use of machinery in construction of irrigation ditches: Fresno, v-shaped crowder, wooden float, disk ridger and grader; weed machine and trash remover; dredger.

2155. PRESCRIPTION FOR WORK (1949) A II 6 VETS
10 min.**
Physical therapy rehabilitation program, explained: light mechanics procedure to determine work capacities of patients with physical disabilities. Supplemented by fifteen one-reel films as follows: (1) Sharpening Hand Gravers (2) Screws and Plates; (3) Eye Loop Holder; (4) Sharpening Screw Drivers and Tweezers; (5) Turning Brass and Hand Gravers, Part I; (6) Turning Brass and Hand Gravers, Part II; (7) Removing and Replacing Balance Wheel; (8) Making a Fiddle Bow; (9) Burnishing Pivots; (10) Truing Balance Wheels; (11) Poising Balance Wheels; (12) Making a Cone Point Setscrew; (13) Making a Center Punch; (14) Making Three Steel Staffs; (15) Making an Anchor Bolt.

2156. PRESERVATION OF BACTERIA BY DESICCATION IN VACUO (4-102) (1949) A II 1c CDC-UWF
11 min.**
Simple techniques for preservation of bacteria in vacuo. Preparation of cultures; transfer of emulsion to sterile sand in vial; sealing vial with cotton plug; labelling. Desiccation and storage of cultures: procedure illustrated in detail. Recovery of cultures: by transfer to liquid medium prepared for subculturing bacteria. How to incubate broth culture and presently transfer growth to solid medium.

2157. PRESERVING FOOD (1949) A III 3
10 min.; also color.* CORONET
Techniques of properly preserving foods for future use; importance of cleanliness; control of temperature and moisture as means of preventing, retarding, or stopping certain food spoilage.

2158. PRESIDENT'S CABINET, THE (1950) — A VIII CORONET
10 min.; also color. *
Function of the cabinet and executive departments in federal government of United States; general development of cabinet reviewed.

2159. PREVENT DYSENTERY ✓ (1947) — A II 3 I.I-A.A.
7 min.; color.
Cause and effect of dysentery; importance of simple sanitary measures.

2160. PREVENTING THE SPREAD OF DISEASE ✓ (1944) (Health series) — A II 3 NMP
10 min.; also 35 mm. *
How communicable disease is transmitted; how community and individual can check movement of disease germs (sewage disposal; cleanliness in milk production, etc.). Importance of vaccination, preventive inoculation, and cleanliness. How to maintain good general health.

2161. PREVENTION AND CONTROL OF DISTORTION IN ARC WELDING (1945) — A VI 1 LincEC
20 min.; color. **
Why and how metals expand and contract when heated and cooled; how distortion can be prevented and controlled. How to use proper fitup, proper number of passes, intermittent welds and back-stepping; proper welding sequence, peening and use of jigs and fixtures.

2162. PREVENTION AND IMMEDIATE CARE OF ATHLETIC TYPES OF INJURIES (1942) — A II 7e BecD
45 min.; color; silent. **
Detailed demonstration of measures to prevent athletic types of injury. Proper first aid treatment of such injuries explained and illustrated.

2163. PRIMARY CELL ✓ (1944) — C VIII EBF
11 min. *
Dry cell operation in terms of electron action. Ionization of an electrolyte, electron flow, action as electrodes, polarization, function of depolarizer. Cells in series and in parallel.

2164. PRINCIPAL DIMENSIONS, REFERENCE SURFACES, AND TOLERANCES (1944) (Machine Shop Work--Blueprint Reading--53) — A VI 1 OE
12 min. *
Relationship between blueprint and a round and finished casting; how to use a blueprint in selecting reference surfaces; interpret tolerances; in checking accuracy of finished work.

2165. PRINCIPLE OF MOMENTS (1944) (Engineering--Mechanics--362) — D II OE
23 min. *
Concept of moment of a force and formula for finding its numerical value; meaning and significance of principle of moments and principle of moments as applied to all coplanar force systems.

2166. PRINCIPLES OF BAKING ✓ (1943) — A III 3 EBF
11 min. *
Principles involved in baking yeast breads, quick breads, pastries, cakes. Structure of flour; structural changes during leavening process. Variation in baked products according to ingredients, kind and amount of leavening, manner of mixing, baking temperature.

2167. PRINCIPLES OF COOKING ✓ (1943) — A III 3 EBF
11 min. *
Fundamental principles involved in various methods of cooking meats and vegetables: boiling, frying, broiling, braising, roasting, steaming, pressure cooking. Each method demonstrated. Effect of cooking process on palatability and nutritive quality of foods. Changes in starches and meat made by heat.

2168. PRINCIPLES OF DEVELOPMENT ✓ (1950) (Child Development Series) — A II 4c McG-H
17 min.
Fundamentals of human growth and change from early infancy; basic principles. Continuous, orderly, progressive, predictable pattern. Development within pattern. Variables: intelligence, sex, glandular activity, race, nutrition, health, position in family, incentive, heredity, parental attitude.

2169. PRINCIPLES OF DRY FRICTION ✓ (1945) (Engineering--Mechanic--365) — A VI 1 OE
17 min. *
Defines friction; advantages and disadvantages of friction; forces involved to friction; static and kinetic friction; calculation of the co-efficients of static and kinetic friction.

2170. PRINCIPLES OF ELECTRICITY (1945) — C VIII GE
20 min.; color. *
Animation used extensively to explain principles of electricity: atomic structure of matter, action of electrons within atom. Volt, ampere, ohm defined. These units of pressure, electric current and resistance, established as principles in flow of electricity. Magnetism, magnetic fields. Conductors, non-conductors. How magnetic fields function in generation and application of electricity.

2171. PRINCIPLES OF GAS-FILLED TUBES (1944) (Engineering--Electronics--353) — A VI 1 OE
15 min. *
Theory of ionization applied to gas-filled tubes; control of current in circuits employing gas-filled tubes; gas diode as a rectifier; application of gas triode as a grid-controlled rectifier.

2172. PRINCIPLES OF GEARING √ (1945) A VI 1 OE
(Engineering--Mechanics--363)
18 min.*
Differentiates friction gears and toothed gears; explains law of gearing, positive driving, involute profiles, pressure angle, cycloid profiles, velocity rates, and circular pitch.

2173. PRINCIPLES OF HOME CANNING (1944) A III 3 EBF
11 min.*
Why foods must be processed to preserve and protect from spoilage. Cinemicrography depicts such spoilage agents as clostridium botulinium. Processing of foods of high-acid content in boiling water; of low-acid content in pressure cooker. Scientific principles involved in sterilization, timing, hermetic sealing.

2174. PRINCIPLES OF LUBRICATION √ (1945) A VI 1 OE
(Engineering--Mechanics--355)
16 min.*
Why lubrication is necessary; the physical properties of lubricants; lubricants in action; viscosity of lubricating fluids; basic lubricant requirements. Animation used.

2175. PRINCIPLES OF PENICILLIN THERAPY √√ (1950) A II 1 1 SQUIBB
20 min.; color.**
Importance of basic principles of penicillin therapy: (1) infecting bacteria must be susceptible to action of penicillin, (2) must be reached by adequate concentrations of antibiotic, and (3) therapy must be continued over a period sufficient to eradicate or suppress organisms; how principles are applied; effects of penicillin therapy on infections and infectious diseases; rare cases of sensitivity to penicillin.

2176. PRINCIPLES OF REFRIGERATION (1944) A VI 1 OE
(Engineering--Mechanics--360)
20 min.*
Basic physics of heat transfer, with refrigeration as a method of heat transfer from inside of a refrigerator to outside. Compression and absorption systems.

2177. PRINCIPLES OF REFRIGERATION, THE (1941) C VIII KB
11 min.*
Discovery and development of refrigeration; application of principles in commercial and household uses for preservation of food.

2178. PRINCIPLES OF SCALE DRAWING (1949) C VII 3 CORONET
10 min.; also color. *
In planning booth for charity fair, high school students learn importance and principles of scale drawing, tools required.

2179. PRINCIPLES OF THE GENERATOR (1949) C VIII YAF
10 min.*
Elementary principles of electromagnetic induction explained in simple terms; and related to operation of generator which supplies electric current to homes and factories.

2180. PRINTING (1947) A VI 5
11 min.* MAHNKE
Importance of art of printing. Jobs of typesetting, display, make-up, layout, linotype and monotype operation. Types of equipment: letter press, offset, newspaper.

2181. PROBLEM CHILDREN √√ (1947) A II 4c OHIO
20 min. * **
Story of two "problem children" of junior-high age: aggressive show-off, in trouble because of things he does, and shy introvert, in trouble because of things he doesn't do. These shown to be not "problem children" but children with problems that have grown out of their individual home, school and play relationships; effect of these relations on mental health and personality development of the two boys. How parents and school together can work toward solution of such problems and help children to grow to useful, well-adjusted adulthood.

2182. PROBLEM OF BACTERIA IN MILK (1948) D I 2 PennSalt
20 min.; color.**
How problem of bacteria in milk may be minimized by sanitary procedures. Morphology and growth of certain bacteria shown; contamination by poor sanitation illustrated. Methylene blue test described. Chemicals that may be used in sanitation procedures.

2183. PROBLEM OF PUPIL ADJUSTMENT √ (1950) A II 4c McG-H
(Educational Psychology Series)
20, 19 min.
Part I. The Drop-Out. Dramatized story of high school boy who leaves before graduation, and drifts from one mediocre job to another. Why he left: bored by dull presentation of knowledge for which he foresaw no practical use out of school.
Part II. The Stay-In. Story of a school with enviable record for holding its students: it stresses learning in terms of adjustment to everyday living. Teaching in terms of pupil experience and need.

2184. PROBLEMS IN THE TREATMENT OF POLIOMYELITIS (1948) A II 1 1 UMINN
45 min.; color.*
Problems of acute poliomyelitis with tightness in usual sites of neck, back, and leg extensors; also in other muscles. Types of weakness, in poliomyelitis. Gaits and functional deformities results of weakness and tightness following polio. Amount of re-

covery which may be obtained under treatment over period of twelve to twenty-four months.

2185. PROBLEMS OF CITY DRIVING (1949) — A II 7d PROG
9 min.*
Hazards of heavy traffic driving in urban areas. Correct procedure on entering street from private driveway; which lane to use in varying circumstances; safety zones and pedestrian hazards; parallel and diagonal parking; on hills, right of way at intersections; emergency vehicle right of way; U-turns.

2186. PROBLEMS OF FLIGHT (1941) — C VIII EBF
11 min.*
Major principles of flight maneuvers, forces acting in place during flight. Manipulation of plane's controls in taking off, climbing, banking, stalling, spinning, diving, gliding, landing. Correct and incorrect techniques special emphasis on gliding and landing.

2187. PROBLEMS OF HOUSING (1945) — A III 1 EBF
11 min.*
Standards for healthful, comfortable, pleasant housing; simple, practical ways to improve homes to meet these standards. Community planning.

2188. PROBLEMS OF RHEUMATOID ARTHRITIS (1950) — A II 1k ARF
28 min.; color.**
Incidence of arthritis; economic and social significance. Pathology, clinical manifestations, treatment of rheumatoid arthritis. Arthritis therapy; cortisone, corticotrophin (ACTH); hormone therapy.

2189. PROBLEM-SOLVING IN INFANTS (1942) — A II 4c IntFB
29 min.; silent.*
How problem-solving process and development of intelligent behavior are analyzed in child study laboratory:
Reel I: How children of different ages and temperaments attack problem of obtaining desired object seen through but obstructed by glass plate. Perception, motivation, motor ability evaluated before performance ability can be rated.
Reel II: How children of different ages learn "principle" in using rakes to obtain food out of reach outside of cage in which they are placed.

2190. PROBLEM-SOLVING IN MONKEYS (1941) — A II 4c IntFB
17 min.; silent.*
Behavior of Cebus and Rhesus monkeys on two complex tasks: (1) selecting proper string among several arranged in patterns on platform adjacent to test cage: (2) use of tools (rakes) in securing food placed beyond normal reach. Latter includes (a) use of single rake, (b) use of short rake to get another one long enough to reach food, (c) continuing problem until eight rakes in series are used. Demonstration of complicated tool-using behavior in monkeys.

2191. PRODUCING QUALITY MILK (1947) — D I 2 MIF
27 min. **
Breeding, proper care of cows, clean well-built lighted ventilated barns, modern sanitary handling of milk, mean profit for dairy farmer and a better product for consumer.

2192. PRODUCT DEVELOPMENT √ (1951) — A VII McG-H
(Industrial Organization and Management, Set I).
10 min.
Role of research in improving materials, processes, products; qualifications for acceptable product ideas (production requirements in relation to existing facilities); aspects of product engineering.

2192 1/2. PRODUCTION AND PROCESSING OF OYSTERS (4-073) (1948) — D III CDC-UWF
16 min.**
How sanitation can be maintained throughout oyster production and harvesting; factors of contamination shown. Types of oyster beds; shucking and processing plants. Proper facilities and procedures illustrated. Tamper-proof containers; packer's certificates. Housekeeping: clean-up procedures for boats, plant, and equipment.

2193. PRODUCTION CONTROL, √ (1951) — A VII McG-H
(Industrial Organization and Management Series II)
20 min.
Part I: Production control presented as systematized procedure by which management regulates product output according to sales (routing, scheduling, dispatching and follow-up). Routing illustrated in detail.
Part II: Scheduling, dispatching and follow-up demonstrated. Master schedule; control charts; centralized and decentralized dispatching.

2194. PRODUCTION OF FOODS √√ (1946) — B IV EBF
11 min.*
Momentous problem of world food production; geography of production; production dependent on soil; proper diet requires cheaply produced primary foods. Problems of widespread malnutrition; suggested solutions by use of modern farming techniques and tools.

2195. PRODUCTIVITY-KEY TO PLENTY (1949) — A VII EBF
21 min.*
How machines have contributed to improved standards of living during the past century by increasing man's ability to produce. Prosperi-

ty dependent on technological progress, on full use of basic sources of power and on wise use of resources. Effect on life of people today.

2196. PROESTROUS AND OESTROUS BEHAVIOR IN THE GUINEA PIG (1936) — A II 1a — WISTAR
6 min.*
Definite pattern of oestrous behavior of guinea pig, eight to ten hours prior to ovulation. Behavior in both normal and injected spayed animals shown.

2197. PROFESSIONAL CAREERS √√ IN DENTAL ASSISTING (1952) — A VI 3 — ScieFC
11 min.; color; also silent.*
Typical duties of young woman graduate dental assistant; two year college training course described.

2198. PROFESSIONAL PORTRAIT, A (1951) — A II 7d — AutoMA
22 min.**
How drivers of commercial vehicles are trained in the United States for safety and courtesy.

2199. PROGRESS THROUGH ENGINEERING (1945) — A VII — GenM
18 min.**
Relationship of modern civilization to engineering profession, which touches fields of transportation, sound transmission, sanitation, refrigeration, home comforts, electricity, and even playthings and luxuries. How modern industry coordinates efforts of engineering staffs in developing and improving products.

2200. PROGRESSIVE HEPATO-LENTICULAR DEGENERATION (1949) — A II 4d — SPGood
(Neuropsychiatric Disorders Series)
9 min.; silent.*
Seven patients demonstrate pathology in extrapyramidal system; involvement of liver structure in form of cirrhosis, as a distinctive feature; coronal section of brain, liver with cirrhotic. Wilson's disease, Westphal-Strumpel pseudosclerosis in early decades, hepato-lenticular degeneration appearing in later life.

2201. PROJECTING MOTION PICTURES (1951) — B VI 2 — UCLA
10 min.*
Relationship between audience and certain elements of projecting: seating, screen, loudspeaker, projector, projection procedure.

2202. PROMENADE ALL (1947) — E 2 — GATE
10 min.; also color.*
Eighteen figures, western (U.S.A.) square dance; typical western costumes, dance music and calling.

2203. PROPAGANDA TECHNIQUES (1948-9) — A VIII — CORONET
10 min.; also color.*
How to recognize and evaluate propaganda. Importance of judicious, critical attitude toward propaganda. Purposes and techniques of propaganda explained.

2204. PROPERTIES OF TRIANGLES√√(1949) — C VII 3 — KB
(Practical Geometry Series)
12 min.*
Practical importance of rigidity of triangles illustrated; compared with strength of non-rigid figures. Theorems. Merging of lines and points when triangle becomes equilateral.

2205. PROPERTIES OF WATER (1947) — C VIII — CORONET
10 min.; also color.*
Importance, composition, forms of water; boiling, freezing points; energy changes (ice, water, steam); distillation, solution. Water as a measure (metric system); specific gravity.

2206. PROPERTY TAXATION (1946) — A VIII — EBF
10 min.*
How assessments and levies are computed; why property taxation is necessary; how bond issues are floated to finance permanent improvements.

2207. PROPHET WITHOUT HONOR (1939) — A IX 1 — TFC-MGM
(MGM Miniature Series)
11 min.*
Work of Admiral Maury, out of which developed the United States Weather Bureau.

2208. PROSTHESIS--OCULAR REPLACEMENT (MN--4391--B) (1945) — A II 6 — USNavy
25 min.; color.
Demonstrates taking of impression, making master cast and wax pattern; duplication of pattern in acrylic resin, creating iris and final polishing of eye. Hastening of patient's final adjustment as result of restored confidence.

2209. PROTOPLASM BEGINNING OF LIFE (1949) — C II — BRAY
11 min.*
Earliest forms of life revealed through geology. Characteristics of living things: movement, irritability, assimilation, reproduction, shown in amoeba, stentor and other simple forms. Nature of protoplasm. Metabolism. How growth stops, function ceases; plant or animal dies. Reproduction: power to pass along appearance and characteristics, so perpetuating species.

2210. PROTOZOA--ONE-CELLED ANIMALS. (1942) — C II — EBF
11 min.; silent.*
Life of various protozoa observed by means of microcinematography. Dissecting amoeba

under microscope. Methods and means of locomotion, food-getting, and digestion in such animals as exuviella, actinophrys, dileptus, condylostoma, paramecium, blepharisma. Reproduction, elimination, and defense in such animals as blepharisma, spirostomum, actinosphaerium, stichotricha, difflugia, zoothamnion.

2211. PSYCHONEUROSES--ORGANIC SIGNS--THEIR DIFFERENTIATION (1944) A II 4d SPGood
(Neuropsychiatric Disorders Series)
16 min.; silent.*
Patients with definite clinical changes and behavior characteristic of organic syndromes. Psychogenic origin demonstrated.

2212. PUBLIC OPINION (1946) A VIII EBF
11 min.*
Nature and development of public opinion; factors that influence it; how it may be measured. Growth stages: awareness of problem; individual interpretations; suggested remedies; further debate; final action. Balanced reporting, free discussion, expert opinion, essential to enlightened public opinion.

2213. PUBLIC OPINION IN OUR DEMOCRACY (1950) A IX 1 CORONET
10 min.; also color.*
Importance of public opinion in a democracy; how public opinion is formed and determined on a significant community issue; citizen's obligation to express opinion in terms of responsible action.

2214. PUEBLO ARTS (1952) A IX 1
10 min.; color. UMINN
Because village life allowed Pueblo Indians to settle down to live on an agricultural economy, they have been able to develop their creative skills. Artists Pa Pava Da and Maria Martinez create their artistic black pottery.

2215. PUEBLO BOY (1948) A IX 1
20 min.; color.** FORD
Indian family life, work, play (near Albuquerque, New Mexico). Traditional dances. Festival at Gallup.

2216. PULLING AND INSTALLING CABLE AND PACKING TERMINAL TUBES (1944) A VI 1 OE
(Shipbuilding--Marine Electricity--113)
16 min. Also rental in U.S.A.
How to pull, strap, and straighten cable; prepare cable for pushing; for pulling with rope; how to pack terminal tubes.

2217. PUPPETRY: STRING MARIONETTES (1947) A V 1 EBF
11 min.*
Child visitor to puppeteer's workshop finds craftman at work constructing a marionette; carving wooden parts, assembling pieces, adding costume. Manipulation of strings for basic actions of walking, gesturing, nodding, sitting. Episode from Hansel and Gretal.

2218. PUPPY TROUBLE (1947) A V 2
(Training You to Train Your Dog Series) UnitSp
20 min.; also color.
Feeding and training a puppy from eight weeks to nine months.

2219. PURIFICATION OF WATER (TF 8-1174) (1943) A II 3 a USArmy-UWF
16 min.**
Dangers of drinking polluted water; methods of purifying water under various conditions.

2220. PURSUIT OF HAPPINESS, THE (1949) A I 5 a AgMC&BW
35 min.; color.*
Life and job conditions of typical member of Amalgamated Meat Cutters & Butcher Workmen of North America. Union activities, including collective bargaining, political action, recreation; long-term benefits for worker and family. Organization structure of American Federation of Labor, and this union.

2221. PYLOROMYOTOMY FOR INFANTILE PYLORIC STENOSIS (1950) A II 1 q SturG
14 min.; color.*
Physiologic effects of congenital hypertrophic pyloric stenosis; general features of Fredet-Weber-Ramstedt operation for pyloromyotomy (both illustrated by animated diagram). Typical case shown; standard surgical procedure: pyloric tumor incised longitudinally down to layer of mucous membrane, which is then free to herniate up through incised musculature. Uneventful postoperative course in patient. (Dr. John L. Madden)

2222. PYTHAGOREAN THEOREM √√ (1949) C VII 3 KB
(Practical Geometry Series)
12 min.*
Historical background of Pythagorean theorem; use of 3.4.5 triangle by Egyptians. Theorem proved; examples shown. Basic importance of theorem stressed.

Q

2223. QUADRILATERALS (1946) C VII 3
(Practical Geometry Series) KB
12 min.*
Chief properties of important quadrilaterals (parallelograms, rectangle, rhombus, square, trapezoid, trapezium) illustrated and explained.

2224. QUADRUPLE LIGATION AND EXCISION OF FISTULA OF FEMORAL VESSELS (PMF 5082) (1948) A II 1 q USArmy-P
17 min.; color.**

Surgical management of case resulting from high explosion of shell fragment approximately six months prior to operation.

2225. QUALITY CONTROL √ (1951) A VII
(Industrial Organization and Management, Series II) McG-H
10 min.
How industry controls quality of product by checking variable factors in manufacturing (men, machines, materials, manufacturing conditions, etc.) How good quality program raises production, reduces scrap and waste. Factors to be considered in setting quality standards. Inspection system; statistical techniques; sampling. Laws of probability and expectancy illustrated.

2226. QUALITY IN THE MAKING A VII
(1944) GenM
23 min.**
Highlights of raw material control, inspection, and production of ball bearings. Testing and manufacturing of high-grade steel used in ball bearing production; careful gauging and visual inspection of rings during forging and grinding processes; how inner and outer rings are matched in sets and treated for rust prevention. How balls are ground and polished under rigid inspection. How rings and balls are shipped to assembly division; assembled, cleaned, inspected, greased, packed in moisture-proof glassine paper, shipped.

2227. QUESTING MIND, THE (1951) A IX 1
20 min.; color.** GenM
Why spirit of research is essential to human progress; tribute to research scientists and technicians.

2228. QUESTION IN TIME, A (1949) A II 1o
20 min.* ** ACS
Answers to questions about cancer commonly asked medical speaker by general audience. How adults as well as children can let their imaginations lead them astray; how fear can be dispelled with knowledge.

2229. QUICKER'N A WINK C VIII
(1940) TFC-MGM
(Pete Smith Specialties Series)
9 min.*
Demonstration of stroboscopic camera. Objects photographed while moving at speed which has heretofore defied reproduction through photography: electric fan, football player kicking ball, golfer driving, kitten lapping milk; bubble breaking; dental drill in operation; drop of milk falling on pan; motion of humming bird's wings. Facetious commentary.

2230. QUIETING A NOISY REFRIGERATOR (1944) A VI 1
(Refrigeration Service--447) OE
16 min.*
How to check and correct noise caused by high head pressure or oil-logged evaporator; compressor noises; motor noises; and noises caused by wear or looseness of parts.

R

2231. RABBETING AND SHAPING AN EDGE ON STRAIGHT STOCK (1944) A VI 1 OE
(Woodworking--Spindle Shaper--318)
18 min.*
Principle of shaper operation; how to set up machine for cutting rabbets; how to cut rabbets; and shape molding.

2232. RABIES (1929) A II 1s
5-1/2 min.; silent.* EBF
History of rabies: Description of disease in dogs as far back as 4th century B.C. by Aristotle; (2) Celsus (1st century A.D.) recorded first human case; (3) Zinke (1804) first demonstrated infectious nature of saliva of rabid dogs; (4) Pasteur (1883) advocated prophylactic treatment (Pasteur treatment); (5) Negri (1903) found inclusion bodies in central nervous system, especially in Ammon's Horn. Etiology; pathology. Treatment consists of (1) prophylactic (Pasteur treatment) and (2) palliative. Prognosis good when prophylactic treatment is given immediately; once disease has developed no treatment avails.

2233. RADIAL NERVE INJURY IN MID-ARM (PMF 5079) (1948) A II 1 q USArmy-P
8 min.; color.**
Case of arm wound which paralyzed radial nerve supply to forearm and hand; technique used to effect repair; postoperative findings.

2234. RADICAL ORCHIDECTOMY (PMF 5032) (1946) A II 1 q USArmy-P
14 min.; color.**
Approved technique for surgical removal of testicle, following injury or for removal of malignancy.

2235. RADIO AND TELEVISION (1940) A VI 5 MAHNKE
11 min.*
Analysis of radio industry from vocational guidance standpoint. History of radio; its importance. Importance of allied inventions (sound motion picture, public address systems, wirephoto, etc.) Jobs in radio industry treated in detail: the commentator (qualifications needed; future involved, etc.); studio program producers, studio technicians, set repair men, wireless operators, station executives. Training needed; only accredited schools should be considered.

2236. RADIO SHOP TECHNIQUES (MN 1540e) (1943) A VI 1 USNavy
(Radio Technician Training Series)
38 min.
Tools used by radio technician; orthographic projection, lay-outs, sawing and filing, drilling, bending metal, wiring, and soldering in making regenerative receiver.

This is one of a series of films and corresponding filmstrips addressed to the training of radio technicians. There is another series of films for radio operator training.

2237. RADIOACTIVITY-LABORATORY DEMONSTRATIONS (PMF 5110) (1949) — A II 1 q — USArmy-P
17 min.; color.**
Elementary principles of radioactivity; instruments used in the laboratory for detection and counting.

2238. RADIODONTICS: INTRA-ORAL TECHNIQUE (1950) — A II 1e 7 — IO
33 min.*
Complete procedure, using 18 inch film target distance, for making periapical radiographs of left half of maxilla and mandible, interproximal radiographs of each interproximal space on left side of ardhes. Horizontal and vertical angulations of x-rays emphasized by animation. Processing procedure carried through to completion. Principals of diagnostic x-ray techniques correlated with actual performance of techniques.

2239. RADIO-FREQUENCY HEATING (1947) — C VIII — WestH
40 min.; color.**
Theory of induction and of dielectric heating explained and practical applications shown.

2240. RADIOISOTOPE, THE (PMF 5145) (1951) — C VIII — USArmy-P
40 min.
Underlying theory and practice of measurement of radio activity explained and illustrated.

2241. RADIOISOTOPE METHODOLOGY, THE (PMF 5145D) (1951) — A II 1 q — USArmy-P
33 min.**
Series of criteria of tracer methodology; radiochemical purity. Technique combines negative and positive teaching; and illustrates by success or failure a criterion followed or ignored. Economy of time, materials and accuracy considered key factors.

2242. RADIOTHERAPY: HIGH DOSAGE TREATMENT (1944) (Nursing--411) — A II 1 l — OE
17 min.*
Nature of X-rays, varying degrees of penetration of low voltage and high-voltage rays; effect of X-rays upon human tissue; how nurse technician prepares patient and administers X-ray treatment.

2243. RAILROAD SIGNAL, THE (1946) — B V 1 — NYCent
17 min.**
History of railroad signal development; operation of modern automatic signalling equipment.

2244. RAINBOW OF THE DESERT (ZION NATIONAL PARK) (1937) — A IX 1 — FORD
7 min.**
Walking party on trails of Zion National Park (southwestern Utah). Ruins of homes of cliff dwellers. Observation Point; Sentinel Rock; Great Patriarch (monolith), Angels' Landing.

2245. RAISING AND LOWERING PORTABLE WELL-SERVICING UNIT (1948) — A II 7c — Humble
28 min.; color.
Procedures to be followed and safety precautions to be taken when raising and lowering portable oil well drilling unit.

2246. RANGE REARING AND BROODING CHICKENS IN NEW YORK STATE (1945) — D I 2 — NYSExt
30 min.; color; silent.*
How year's work on poultry farm is carried on under range method of rearing poultry; how range houses are cleaned and moved to winter and spring positions; brooding methods with both coal and electricity; equipment needed with day-old and eight-weeks-old chicks; construction of range and shelter houses, waterers, feed hoppers, other equipment.

2247. RAT ECTOPARASITE CONTROL (M37g) (1951) (Rodent Control Series) — A II 3 b — CDC
12 min.**
Why rat ectoparasite control is essential to control of rat-borne diseases; use of equipment, materials, techniques.

2248. RAT KILLING (M37f) (1951) (Rodent Control Series--Practical Rat Control II) — A II 3 b — CDC
36 min.**
Techniques of rat killing by means of various rodenticides and traps; advantages, disadvantages and techniques for use of such rodenticides as redsquill, ANTU, arsenic trioxide, 1080 water, and warfarin; tracking patches and traps.

2249. RAT PROBLEM, THE (M37a) (1951) (Rodent Control Series) — A II 3 b — CDC
25 min.**
Extent and seriousness of health and economic hazards caused by rats.

2250. RAT PROBLEM, THE (TF 8-1669-72, -75) (1950-1) — A II 3 b — USArmy-P
25, 28, 28, 21, 12 min.**
Part I: The Rat Problem. Destructiveness of rat; contamination it causes; rat as carrier of disease; blood poisoning caused by rat bites; transmittal of plague from rat to man by rat fleas. Necessity for using scientific methods to control rats.

Part II: Habits and characteristics of the Norway Rat. Habits, characteristics, which enable it to live with man, and enable man to control it.
Part III: Habits and characteristics of the Roof Rat. Habits and characteristics of roof rat which enable it to live with man, and enable man to control it.
Part IV: Sanitation Techniques in Rat Control. Sanitation emphasized as basic method of eliminating rats. By controlling conditions necessary to rat life, availability of food and harborage, rats can be successfully eliminated.
Part V: Rat Ectoparasite Control. Measures for controlling rat fleas by use of DDT.

2251. RATPROOFING (M37e) (1951) A II 3 b
(Rodent Control Series--Practical Rat Control II) CDC
18 min. **
Theory, materials, techniques for ratproofing existing buildings; operation of central ratproofing shop and mobile workshop for simple on-the-job ratproofing.

2252. RATIO AND PROPORTION √√ C VII 3
(1949) KB
(Practical Geometry Series)
12 min.
Applications of idea of ratio in various real-life situations; relationship between a ratio and a proportion. "Product of Means Equals Product of Extremes Theorem" covered in detail. Usefulness of ratio as means of comparing quantities.

2253. REACHING PREHENSILE BEHAVIOUR OF THE HUMAN INFANT (1941) A II 4c IntFB
15 min.; silent. *
Development of eye-hand coordination illustrated. Slow-motion closeups showing differences in adult and infant manner of comprehending objects of various sizes and shapes; successive pictures of same child reaching for suspended watch. Pictures taken periodically during first 3 years to demonstrate maturation of coordination.

2254. REACTIONS IN PLANTS AND ANIMALS√√(1934) C II EBF
11 min. *
How plants and animals react to various stimuli; geotrophism; phototrophism; stereotrophism. Reactions to gravity, light, contact, touch. Tendency of fish to swim upstream.

2255. REACTIONS OF THE INFANT TO PINPRICK (1941) A II 4c IntFB
10 min.; silent. *
Blunt sterile pin used in stimulating baby on four major anatomical divisions of body: cheek, chest, leg, arm. Individuation in maturation illustrated, beginning with mass or total response of newborn, growing less diffuse until local, specific reaction is developed.

2256. READING A DRAWING OF A VALVE BONNET (1944) A VI 1 OE
(Machine Shop Work--Blueprint Reading--55)
20 min. *
How to interpret conventional symbols and tolerance specifications and use the blueprint in planning machine operations.

2257. READING A THREE-VIEW DRAWING √(1944) A VI 1 OE
(Machine Shop Work--Blueprint Reading--52)
10 min. *
How to use a blueprint to visualize object; how to interpret blueprint; and make a tool block according to specifications.

2258. READY TO TYPE (1947) A VI 3
10 min.; also color. * CORONET
Typing efficiency begins with intelligent preparation: when one student gets ready to type, he places all working materials conveniently, adjusts machine, adjusts chair, exercises fingers, takes time for conditioning practice to establish control. Another plunges in with no preparation.

2259. REALM OF THE HONEYBEE (1932) C II USDA
53 min.; also 35 mm. **
Life history of honeybee (close-up photography).

2260. REAMING WITH STRAIGHT HAND REAMERS √(1942) A VI 1 OE
(Machine Shop Work--Bench Work--37)
20 min. *
How to drill and machine-ream two holes in line; how to finish hole to size, using straight fluted reamer; how to use helical-fluted reamer in reaming hole in gear blank having keyway.

2261. REAMING WITH TAPER HAND REAMERS √(1942) A VI 1 OE
(Machine Shop Work--Bench Work--38)
15 min. *
Demonstrates hand reaming of taper pin hole through shaft and collar; taper reaming of dowel pin hole in split bearing.

2262. REARING AND HANDLING OF ANOPHELES MOSQUITOES (4-006) (1945) √√ A II 3a CDC
15 min.; also color. **
Adult anopheline mosquitoes as aid in study of transmission of foreign types of malaria. Insectary techniques illustrated by those used at U. S. Public Health Service Malaria Research Laboratory, Columbia, S. C.

2263. REASSEMBLING THE ENGINE (1944) (Airplane Maintenance--Power Plant Maintenance--271) A VI 1 OE
22 min. *
How to reassemble crankshaft and camshaft assemblies, crankcase section, and gear case cover assembly; reinstall oil sump; complete reassembly of engine.

2264. REBIRTH OF THE GOOD EARTH (1950) D I 1 DeK
23 min.; color.**
Rebuilding soil (of an Ohio farm) and producing better crops through proper soil management.

2265. RECEIVING RADIO MESSAGES√ √(1943) B VI 4 EBF
11 min.*
Basic principles of radio reception. Variable condenser, mutual and self inductance; resonance. Function of crystal. Earphone explained.

2266. RECONDITIONING A CULTIVATOR (1944) D I 3 OE
(Farm Work--Equipment Maintenance--453)
14 min.*
How to replace a worn wheel boxing; how to adjust yoke; how adjust toe-in of wheels; how to check and adjust shovels; how to check and lubricate gang expansion and steering assemblies.

2267. RECONDITIONING A GRAIN DRILL (1943) D I 3 OE
(Farm Work--Equipment Maintenance--197)
31 min.
How to inspect and repair a typical grain drill; how to clean and lubricate.

2268. RECONDITIONING A MOWER (1943) D I 3 OE
(Farm Work--Equipment Maintenance--194, 195, 196)
21, 21 min.*
Part I: Cutter Bar. How to check, recondition and repair cutter bar mechanism.
Part II: Drive System. How to remove wheel assembly of mower, clean and lubricate parts; replace worn pawls and springs; replace worn parts of the drive shaft.

2269. RECONDITIONING A TWO-BOTTOM TRACTOR PLOW (1943) D I 3 OE
(Farm Work--Equipment Maintenance--196)
25 min.*
How to check and repair wheel assemblies and power lift assembly; how to recondition plowshares; how to adjust coulter; how to check and adjust furrow wheels in the field.

2270. RECONSTRUCTION OF THE FLOOR OF THE ORBIT (No. 72) (1943) A II 1q DG
16 min.; color; silent.**
Comminuted fracture of molar bone; diplopia present, due to displacement of left eyeball. Operation performed to elevate floor of orbit. Bone defect remedied by grafting. Double vision disappears. (Dr. John M. Converse)

2271. RECONSTRUCTION OF THE LOWER LIP AND CHIN (PMF 5075) (1947) A II 1 q USArmy-P
20 min.; color.**
Case of destruction by shell fragments of two thirds of lower lip and chin and mandible; methods of restoration.

2272. RECREATIONAL AND OCCUPATIONAL THERAPY (1945) A II 1 1 OE
(Nursing--415)
13 min.*
Recreational and occupational activities fitted to patient's condition; passive diversion during immobile state; limited physical activities carried on in bed; individualized occupational therapy; social recreation projects.

2273. RECTILINEAR COORDINATES (1939) C VII 3 KB
(Practical Geometry Series)
12 min.*
Graphic presentation of concept discovered by Rene Descartes introduces student to basic ideas of analytical geometry.

2274. RED BANDED LEAF ROLLER (1948) D I 4 NYSExt
14 min.; color; silent.*
How larvae of red banded leaf roller destroy fruit; spraying procedure; methods for best results in control of pest.

2275. RED HEN, THE (1949) A IV 2 BARR
11 min.; color.
Habits of domestic chickens presented. Respect for property of others implied in conduct of duck which discovers hen's hidden nest but does not disturb it.

2276. REDESIGNING A PATTERN FOR PRODUCTION PURPOSES √ (1944) A VI 1 OE
(Patternmaking--Problems in Patternmaking--336)
11 min.*
How pattern originally designed for casting single piece is redesigned for quantity production.

2277. REDUCED VOLTAGE STARTERS (1944) A VI 1 OE
(Electrical Work--Motor Control--390)
23 min.*
Principle of transformer explained; operation of manual starting compensator, thermal overload relay, automatic starting compensator.

2278. RED-WINGED BLACKBIRD, THE (1946) C II CORONET
10 min.; color.*
Life story of red-winged blackbird. Spring migration of males from Florida to northern marsh; selection of individual breeding places. Females arrive and select mates. Courtship. Nest building. Egg laying, hatching. Baby redwing in a teaspoon; its feather growth and physical development. Fall assembly and southern migration.

2279. REDWOOD SAGA (1946) D I 5
11 min.* S-M
Origin and history of California redwood forests. Lumber industry, from felling trees to ultimate use of wood in home and industry.

2280. REFLEX BEHAVIOR OF THE NEWBORN INFANT (1941) A II 4c IntFB
7 min.; silent.*
Characteristic neuromuscular reactions of newborn infant: (1) Moro reflex, or response to startle; (2) suspension grasp reflex; (3) crawling; (4) stepping; (5) swimming movements; (6) adjustment to inverted position; (7) postural adjustment when pulled to sitting position.

2281. REFRACTION (1951) C VIII
(Light Series) UWF-GB
8 min.*
Refraction demonstrated by analogy of wheels moving from smooth surface onto sand; demonstration of critical angle and total internal reflection; applications in submarine periscope and binoculars.

2282. REHABILITATION OF CHRONIC NEUROLOGICAL CASES (1947) A II 6 VETS
20 min.**
Typical patient followed through rehabilitation course at Minneapolis Veterans Administration Hospital. Development of successful program there from its inception in 1946.

2283. RELAYS, THE (1947) A V 2
10 min.* UWF
Proper pass for right event; visual pass; blind pass; right and left exchange; merging of runners' speed; proper baton grips; relay starts; underhand action; cup style; overhand sprint pass; fly-scoop; necessity for practice and team work.

2284. REMOVAL OF INTRA-THORACIC FOREIGN BODIES (PMF 5021) (1946) A II 1 q USArmy-P
20 min.; color; silent.**
Typical cases; therapeutic measures in each case.

2285. REMOVAL OF LOWER LUMBAR INTERVERTEBRAL DISCS (1949) A II 1q PHH
12 min.; color; silent.**
Operation from an anterior extraperitoneal approach, described and illustrated. Offending intervertebral disc removed under direct vision; disc substance replaced by bone graft.

2286. REMOVAL OF MAGNETIC FOREIGN BODIES FROM THE EYES (PMF 5020) (1946) A II 1 m USArmy-P
14 min.; color; silent.**
Acceptable technique for removal of magnetic foreign bodies from eye; handling of detached retina case.

2287. REMOVING AND INSPECTING CYLINDERS (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--262)
18 min.*
How to remove cylinder assemblies from engine; disassemble, clean, inspect, and recondition cylinders; and measure clearances.

2288. REMOVING AND INSTALLING A COMPRESSOR OR CONDENSER (1944) A VI 1 OE
(Refrigeration Service--442)
17 min.*
How to evacuate and remove compressor in domestic refrigerator; evacuate stuck compressor; install compressor; remove and install condenser.

2289. REMOVING AND INSTALLING A COOLING UNIT (1944) A VI 1 OE
(Refrigeration Service--443)
19 min.*
Common cooling unit disorders in domestic refrigerator; how to evacuate valved evaporators; remove oil-logged evaporator; install evaporator; and a direct expansion cooling unit.

2290. REMOVING DEFECTIVE RIVETS (1944) A VI 1 OE
(Sheet Metal Work--Assembling and Riveting--141)
15 min.*
How inspector marks defective rivets; how to drill heads of flush-type and brazier head rivets; and remove shank and head after drilling.

2291. RENAISSANCE, THE (1950) A IX 2
10 min.; also color.* CORONET
Introduction to Renaissance in Italy; contributions of Petrarch, Galileo, Copernicus, Leonardo da Vinci, others, to Renaissance thinking, investigation, accomplishments.

2292. REPAINTING A FRAME BUILDING (1944) A VI 1 OE
(Farm Work--Painting 460)
18 min.*
How to prepare building for painting; how to set up staging; how to prepare paint; how to apply the prime and second coats; how to care for brushes, paint, and equipment.

2293. REPAIR OF FALSE ARTERIAL ANEURYSM (PMF 5084) (1948) A II 1 q USArmy-P
11 min.; color.**
Small aneurysm of posterior tibial vessels repaired by ligation and excision. Method of Matas applied by aneurysm of brachial artery.

2294. REPAIR OF MEDIAN NERVE (1942) A II 1 q BURKE
15 min.; color; silent.*

Dissection of old, poorly-placed scar, in field rendered bloodless by tourniquet. Trunk of median nerve and adherent tendons, freed; Median nerve had been joined to one of digital flexor tendons. Deep flexor tendon of long finger repaired by free tendon graft taken from sublimus of same finger. Approximation of distal ends of nerve; application of plaster to maintain position. Postoperative results several months later. Tendon transplant performed to provide opposition of thumb. Three months postoperative showing action of fingers.

2295. REPAIR OF RECTO-URETHRAL FISTULA (PMF 5068) (1947) — A II 1 q USArmy-P
3 min.; color.**
Case of injury to large and small bowel, bladder, urethra and rectum caused by bullet wounds. Exploratory laparotomy scar, cystosomy, colostomy, and abdominal fistula wounds; closure of complete fistula by use of Whitehead principle of advancement of rectum.

2296. REPAIR OF RUPTURED MEMBRANEOUS URETHRA (PMF 5022) (1946) — A II 1 q USArmy-P
9 min.; color; silent.**
Technical presentation of accepted surgical measure used in management of patient suffering from ruptured membraneous urethra.

2297. REPAIR OF SKULL DEFECTS WITH TANTALUM PLATE (PMF 5086) (1948) — A II 1q USArmy-P
28 min.; color. **
Techniques of repairing skull defects with tantalum plates. Postoperative results.

2298. REPAIRING A WOODEN RIB (1944) — A VI 1 OE
(Airplane Maintenance--Aircraft Maintenance--247)
24 min.*
How to remove gussets and broken rib parts; splice section of cap strip; cut and finish scarf joint; make new truss member; make and assemble gussets and reinforce cement plates.

2299. REPAIRING AIRCRAFT TIRES (1944) — A VI 1 OE
(Airplane Maintenance--Aircraft Maintenance--254)
20 min.*
How to inspect airplane tire; remove tire; remove tube from tire; vulcanize tube; repair cut in tire; install wheel.

2300. REPAIRING AND RELINING MECHANICAL BRAKES (1944) — A VI 1 OE
(Airplane Maintenance--Aircraft Maintenance--256)
21 min.*
How to check brake action; remove wheel and inspect brakes; disassemble wheel and remove brake lining; install new brake lining, replace brake cables; adjust brakes.

2301. REPAIRING STRUCTURAL TUBING (1944) — A VI 1 OE
(Airplane Maintenance--Aircraft Maintenance--253)
20 min.*
How to straighten bent tube; round out tube; remove damaged section of tube; prepare replacement section; prepare internal reinforcing sleeves; assemble and weld replacement section and sleeves.

2302. REPORT ON DONALD (1948) — A II 6 UMINN
20 min.
Problems of the stutterer; how these difficulties can be analyzed and controlled. Donald Carter, a college freshman, has bad speech blocks: goes to speech clinic for help. His case history at clinic; how he is aided to overcome handicap and becomes confident, socially well-adjusted person.

2303. REPORT TO THE PEOPLE (1946) — A II 3 DCStL.
11 min.*
Health Department as an educational organization serving a large community.

2304. REPRODUCTION AMONG MAMMALS √W (1937) — C II EBF
(The Human Body, Series 1)
11 min.*
Mammalian reproduction illustrated by domestic pig. Development of sperm and eggs, fertilization, embryological development, nourishment of embryo, process of birth. Comparison between development of human and pig embryos. Animated drawing, micro-and natural photography used.

2305. REPULSION-INDUCTION MOTOR-GENERAL OVERHAUL (1944) — A VI 1 OE
(Electrical Work--Motor Maintenance and Repair--397)
25 min.*
How to check repulsion-induction motor for electrical and mechanical faults; dismantle repulsion-induction motor; remove damaged coil, wind and insulate new coil; assemble and lubricate repulsion-induction motor.

2306. REPULSION MOTOR PRINCIPLES√(1944) — A VI 1 OE
(Electrical Work--Electrical Machinery--387)
18 min.*
Construction of repulsion motor explained; rotor circuits and effect of brush position; short-circuiting and brush-lifting mechanism; applications of repulsion motors.

2307. RESCUE SQUADRON √√ (1950) — A IX 1 RKO
16 min.

Operation of American Air Force Rescue Service; rescues at sea and over forbidding terrain. Feeding stormtrapped cattle; supplying isolated groups of men in distress; helping automobile drivers stalled in desert country.

2308. RESEARCH: PATTERN FOR PROGRESS (1950) — A VII CalTO
18 min.; color.
Research activities in large oil company; importance of research in oil exploration, production and refining phases of petroleum industry.

2309. RESECTION OF VAGUS NERVES--TRANS-THORACIC APPROACH (1950) — A II 1q SturG
15 min.; color.*
Trans-thoracic approach for resection of vagus nerves. Indication for surgery was gastro-enteric stomal or marginal ulcer present for nine and a half years. Patient in direct right lateral position; surgical approach through left eighth interspace. No rib resection. Pleural cavity entered, lung collapsed, esophageal triangle demonstrated. Inferior pulmonary ligament doubly clamped and divided, giving access to posterior mediastinal space. Peri-esophageal areolar tissue dissected; underlying esophagus exposed. By rotation of esophagus, left or anterior vagus nerve visualed and isolated; then the right. Four centimeter sections of each removed. Mediastinal space left open; wound closed in layers without drainage. (Dr. John L. Madden).

2310. RESIDUAL SPRAYING (4-091.0) (1951) — D I 4 CDC
(Spraying Equipment and Procedures Series)
9 min.; color.**
Use of hand and power spraying equipment in residual spraying for fly control; structure and use of common 2-or 3-gallon compressor air hand sprayer; how and where to spray with it.

2311. RESISTIVE EXERCISES IN PHYSICAL THERAPY FOR THORACOPLASTY (1950) — A II 6 VETS
27 min.; color.**
How skeletal structure and muscle balance are affected by thoracic surgery; how resulting deformities may be offset by physical therapy techniques. Correct bed posture; overcorrection; resistive exercises demonstrated.

2312. REST AND HEALTH (1948) — A II 2 CORONET
10 min.; also color.*
Fundamental facts about rest and sleep told in story of an athletic high school student who was "burning the candle at both ends" but is brought to timely realization of beneficial effect of rest and sleep on every daily activity.

2313. RESTAURANT OPERATOR (1946) — A VI 5 MAHNKE
11 min.*
Why there are over two million people employed in restaurant business in U.S.A. Jobs in this vocation: owner-operator, hostess, food buyers, personnel directors, chefs, waitresses, etc.; responsibilities explained. Experiences ot "Aunt Martha" related: problems which confronted her which she was not qualified to meet; resulting failure of her venture as warning.

2314. RETAILING FISH (No. 3) (1948) — A VI 1 F&WS
18 min.; color.**
Operation of retail fish store: Selecting, handling, displaying, and merchandising of fresh and frozen fish, shown for fish retailer and consumer education and general audience instruction.

2315. RETROPUBIC PROSTATECTOMY (1948) — A II 1q BURKE
15 min.; color; silent.*
Anatomy of bladder, prostate and retropubic space shown. Enucleation of adenoma and removal by blunt dissection. Resection of V-shaped wedge from posterior commisure of bladder neck for prevention of prolonged suprapubic urinary drainage.

2316. RETURN OF THE PINES (1948) — D I 5 USDA
15 min.; color.**
Ways to combat white pine blister rust. Importance of controlling disease to preserve watersheds, the land itself, and existence of white pine forests.

2317. RHYTHM IN MUSIC (1951) — E VII CORONET
13 min.; also color.*
Grade school orchestra works through progression in rhythmic forms; beginning with steady beats, rhythm is varied through use of accent, changing speed of beats, use of melody.

2318. RHYTHM INSTRUMENTS AND MOVEMENTS (1950) — E VII EBF
11 min.*
How class of very young children learns to make its own instruments and create its own rhythms.

2319. RHYTHM IS EVERYWHERE (1947) — E VII MAHNKE
10 min.*
Small boy on way to school meets cow, horse and train. He responds to rhythm of everything he hears; learns that everything that moves has rhythm.

2320. RHYTHM ON BLADES (1946) — A V 2 TFC-Paramount
(Grantland Rice Sportlight)
10 min.*

Youthful skaters at winter sports centers perfect their skill. Club Professional, Gustav Lussi, puts some of championship pupils through their paces.

2321. RIB STITCHING (1942) A VI 1
21 min. JamH
How fabric is laced or stitched on airplane wings. Correct position of wing to be covered; how to use stitching needles; knots used in stitching; where stitching begins; procedure in completing job. How stitching cords are spliced.

2322. RICKETTSIA: LABORATORY PROCEDURE FOR THEIR ISOLATION AND IDENTIFICATION (PMF 5114) (1949) A II 1o USArmy-P
41 min.; color.**
Step-by-step technique of laboratory diagnosis of rickettsial disease; gross pathology compared with normal; fundamentals of sterile technique.

2323. RIDING THE FILM (1938) C VIII JamH
9 min.
Water as lubricant: use of soap, wax, and tallow for lubricating purposes, shown. Problem of lubricating an automobile engine with oil. Value of oil as lubricant due to its ability to keep an unbroken film which holds sliding surfaces apart under varying temperatures. Oil circulated through machine by splashing; dripping, or forcing it in stream to motor's various parts. Path of oil from pump to main bearings, valves, connecting rods and other working parts of automobile.

2324. RIGHT ON THE NOSE (1944) A II 1m AmO
14 min.**
How to adjust industrial safety goggles with nonprescription lenses to assure each wearer maximum protection with comfort. How to care for goggles.

2325. RIGHT OR WRONG? (MAKING MORAL DECISIONS) (1951) A VI 2 CORONET
11 min.; also color.*
Gang of high school boys breaks warehouse window; one is caught. Moral decisions of watchman, boy's mother, property owner, police sergeant, social worker, and boy. Standards by which each person makes own decisions.

2326. RIGHT PNEUMONECTOMY (No. 224) (1946) A II 1q DG
20 min.; color; silent.**
Operation for primary carcinoma of the lung (right upper lobe) demonstrating anatomical features. (Dr. Richard H. Overholt and Associates).

2327. RIGHT SUPERNUMERARY KIDNEY-REMOVAL THROUGH TRANSVERSE ABDOMINAL INCISION (1948) A II 1q BURKE
15 min.; color; silent.*
Pyelograms of small high-lying kidney; cystoscopy of extra right ureteral orifice. Right transverse abdominal incision; exposure obtained by mobilizing cecum and incising peritoneal reflection. Demonstration of ureters to right kidney and supernumerary kidney.

2328. RIGHT TO HEAR, THE (1943) A II 6 IO
31 min.; also color.*
Need for organized programs of conservation of hearing; objectives and possibilities of attainment in carefully planned approach to problems involved. Techniques of group and individual hearing tests, medical follow-up procedures, and educational readjustments. Dramatized in story of three children, each with different degree of hearing loss. One child makes satisfactory school room adjustment after being more favorably seated; second by use of hearing aid and lessons in lip reading; third after admittance to school for deaf. Recreational, social, and special educational and vocational methods and opportunities presented in modern school for deaf and hard-of-hearing children.

2329. RIKKI-THE BABY MONKEY√√(1949) C II EBF
11 min.*
Rhesus monkey in native habitat; care of young, characteristics and behavior.

2330. RIPPING AND CROSS-CUTTING√(1944) A VI 1 OE
(Woodworking--Variety Saw--306)
19 min.*
How each working part of variety saw functions; how check saw blades; set fence; change saw blades; use cutoff gage; and hinged block in crosscutting.

2331. RISK AND FORECASTING √ (1951) A VII McG-H
(Industrial Organization and Management, Set I)
10 min.
How to calculate chief risks in new enterprize: (1) Analysis of product as to physical appearance, production requirements, commercial uses; (2) market surveys to determine demand; (3) estimates of production requirements; (4) probable relation of production costs to sales income.

2332. RIVER OF ICE (1950) C VI
6 min.; also color.* BAILEY
Source, structure, and movements of typical alpine valley glacier; relationship of climate to seasonal cycle of ice accumulation and meltwater run-off of glacier; effect of glaciation upon land and upon plant, animal, and human life of an alpine region.

2333. RIVER PEOPLE, THE (1947) D I 1 USIndS
25 min.; color.
Story of the Pima Indians; their past reconstructed. Rehabilitation measures undertaken.

2334. RIVER RUN (1951) D I 5 USDA
16 min.; color.
How proper management of privately-owned forests can bring continuing prosperity to owners, communities and the nation. Machias River log-drive (Maine).

2335. ROAD TO HEALTH AND HAPPINESS (1937) A II 1 KG
12 min.*
Stresses diet, rest, safety-first, exercise, school nurse, school examination, immunization and tuberculin test, correction of deformed faces and irregular teeth, medical and dental examination; shows effective way to care for mouth, teeth and body.

2336. ROBIN REDBREAST √√ (1938) C II EBF
11 min.*
Characteristics and habits of a family of robins; nest building, incubating, care of young birds by parents.

2337. RODNEY√√(1951) A II 1 p NatTbA
11 min.; also 35 mm.; color.**
Cartoon character learns how tuberculosis infection can occur, how the disease is discovered, treated, and cured; methods of prevention.

2338. ROMANCE OF INDUSTRY √√(1940) A VII Carbo
40 min.; also 20 min.**
History, manufacture, use of carborundum; importance of abrasives in industry.

2339. ROMANCE OF RADIUM, THE (1937) C VIII TFC-MGM
(Pete Smith Specialties Series)
10 min.*
Story of radium; work of the Curies and Becquerel.

2340. ROMANCE OF THE REAPER (1937) D I 3 IntHar
27 min.**
Development of grain harvesting machines from invention of McCormick reaper in 1831 to present time.

2341. ROOT DEVELOPMENT (1950) C III UWF-GB
(Botany Series)
10 min.*
Details of root structure and growth; mechanisms of roots; sensitivity of root tip.

2342. ROOT RESECTION √√ (1949) A II 1 e 7 ScieFC
22 min.; color; also silent.*
Indications for use of root resection in treatment of periapical dentoalveolar disease. Entire surgical procedure shown on patient with single tooth involvement, and on patient with involvement of all four lower incisors. Radiographic findings, sterile technic, postoperative results.

2343. ROOTS OF PLANTS √√ (1931) C III EBF
11 min.*
Tap, fascicle, fibrous roots, their functions. Time-lapse photography, cinemicrography, animated drawings, laboratory experiments to show root growth, sensitivity, wearing away of cells, osmosis. How biennials store starch.

2344. ROTATING MAGNETIC FIELDS√(1944) A VI 1 OE
(Electrical Work--Electrical Machinery --384)
13 min.
Rotating magnetic field pattern explained; three-phase winding in a demonstration stator; factors that cause rotation of magnetic field; construction of polyphase motors.

2345. ROUGH FACING AND BORING, AND TURNING A SHOULDER ON VERTICAL TURRET LATHE√(1941) A VI 1 OE
(Machine Shop Work--Vertical Boring Mill--17)
22 min.*
Rough aluminum casting, held on the table by means of clamps and U-bolts, is centered and leveled with use of dummy indicator, rough-machined with tools mounted in the main turret head and side head.

2346. ROUGH FACING, TURNING, AND DRILLING√(1941) A VI 1 OE
(Machine Shop Work--Vertical Boring Mill--16)
31 min.*
How to center and chuck an aluminum airplane engine casting on table of vertical turret lathe; how to tool up vertical head and side head for machining operations.

2347. ROUGH GRINDING BY PIN-BAR-SPHERICAL SURFACES (1944) A VI 1 OE
(Machine Shop Work--Optical Craftsmanship--181)
19 min.*
How to use job card; select and adjust grind tool; use abrasive; grind by pin-bar; clean grinding tool; correct worn grinding tools.

2348. ROUGH GRINDING-SPHERICAL SURFACES √ (1944) A VI 1 OE
(Machine Shop Work--Optical Craftsmanship--180)
26 min.*
Three methods of rough grinding lenses: by hand, pin-bar, and mechanical curvature

generator; hand grinding in detail; how to use job card; check tool curvature; handle lone blanks during hand grinding; check lens curvature; clean grinding tool.

2349. ROUGH LINE-BORING √ (1944) A VI 1 OE
(Machine Shop Work--Horizontal Boring Mill--229)
19 min.*
How to install boring bar and cutters; bore, counter-bore, and spot-face holes; reposition from one hole to another.

2350. ROUGH TURNING BETWEEN CENTERS √(1941) A VI 1 OE
(Machine Shop Work--Engine Lathe--6)
15 min.*
How to set up engine lathe for machining work held between head and tail centers. Safety precautions in dress and work, necessity for constant reference to blueprint, lubrication of machine, care of centers and proper use of various lathe controls.

2351. ROUGHING-IN NON-METALLIC SHEATHED CABLE √(1944) A VI 1 OE
(Electrical Work--Wiring--373)
24 min.*
How to determine location of required runs; install offset bar hanger and ceiling outlet box; rough-in circuit run; make up connections for switches, receptacles and fixtures.

2352. ROUND TRIP (1948) B IV TCF
20 min.*
Dependence of all nations on increasing exchange of goods and services among them; what foreign trade means; how new international agencies help its vital free flow. Based on the Twentieth Century Fund's research survey, "Rebuilding the World Economy: America's Role in Foreign Trade and Investment."

2353. ROUTINE ADMISSION CHEST X-RAY IN GENERAL HOSPITALS (1946) A II 1 1 USPHS
22 min. **
Step-by-step sequence of routine miniature film chest X-ray service for patients admitted to hospital or clinic.

2354. ROYALTY OF THE RANGE (1947) D I 2 TFC-20th Cent-Fox
(Lowell Thomas Movietone Features)
10 min.*
Fine points sought by judges at cattle shows in selecting blue ribbon prize winners among various breeds of cattle, sheep and hogs.

2355. RUBY-THROATED HUMMINGBIRD (1946) C II CORONET
10 min.; color.*
Life history, unusal feeding habits and unique flight of ruby-throated humming bird. How nest is built and fledgling (blind and naked on emergence from shell) cared for and protected until it leaves the nest.

2356. RURAL CO-OP (1949) A I 5a STATE
21 min.
Development of farm buying and marketing cooperatives in Rockingham County, Virginia. Milk and poultry processing plants; cold storage locker plant; general store; other services and facilities. Organizational principles explained; how cooperative enterprises develop.

2357. RURAL RAT CONTROL (4-116) (1951) D I 4 CDC
16 min. **
How and where rats live on farm; how individual farmer can eliminate them.

2358. RURAL WOMEN (1951) A IX 1 STATE
55 min.
Life of American farm women (centered around three families in Iowa); role of rural clubs where women learn ways to lighten household work, better their families, participate in community affairs.

2359. RX, THE STORY BEHIND YOUR DOCTOR'S PRESCRIPTION √ √(1948) A II 1 k SQUIBB
20 min.**
Importance of pharmaceutical industry in providing drugs which relieve suffering, restore health, prolong life; relation of progress in development and manufacture of pharmaceuticals to advancement in practice of medicine. Intended for lay audiences.

S

2360. SAFE AS YOU THINK (1950) A II 7 GenM
28 min.**
Importance of attitude of "safety consciousness"; day in life of average man, showing risks he takes needlessly.

2361. SAFE DAY (1939) A II 7 JamH
11 min.
Importance of safety practices at home, in traffic and at work emphasized by example.

2362. SAFE DRINKING WATER FROM SMALL WATER SUPPLIES (1939) A II 3a UMINN
10 min.
Outside cities and towns, beyond mains of central water supply, only source of pure water is found beneath surface of earth where rain water can be tapped for small supplies. How poorly designed, carelessly installed and maintained equipment resulted in contamination of water supply and resulted in spread of contagion. State Board of Health agents made recommendations to insure purity and safety of drinking water. Unsafe features of

bored, driven and drilled wells, illustrated; correct and safe method of installation and design shown. Summary of recommended safety measures; importance of observing them.

2363. SAFE DRIVING: ADVANCED SKILLS AND PROBLEMS (1951) — A II 7 d — CORONET
(Driver Education Series)
11 min.; also color.*
Vacation trip presents advanced driving problems such as driving on hills, in fog, in rain, on snow, on ice, through hot stretches, and at night; procedures demonstrated.

2364. SAFE DRIVING: FUNDAMENTAL SKILLS (1951) — A II 7 d — CORONET
(Driver Education Series)
11 min.; also color.*
Father demonstrates to his son the skillful procedures of: getting the car ready, starting the motor, driving forward, stopping, backing, turning, signaling, and parking. Later, son passes driver's license test.

2365. SAFE DRIVING: STREETS AND HIGHWAYS (1951) — A II 7 d — CORONET
(Driver Education Series)
11 min.; also color.*
Problems of city, suburban, and highway driving arise at beginning of vacation trip; importance of "driving ahead"; specific problems and skills include: series signals, lanes, railroad crossings, passing, curves, traffic circles.

2366. SAFE IN PORT (1948) — A IX 1 — FRITH
16 min.; color.
How engineers plan and build harbors to withstand ocean storms; breakwaters and piers; harbor channels; filling in harbor bays. (Construction work at child's level of understanding.)

2367. SAFE LIVING AT SCHOOL (1948) — A II 7b — CORONET
10 min.; also color.*
Safety features of a school emphasizing courtesy, good housekeeping, skillful and correct actions.

2368. SAFE ON TWO WHEELS (1951) — A II 7 d — AETNA
11 min.**
A boy and his bicycle: safety rules outlined, parallels drawn between riding bicycle and piloting plane.

2369. SAFE RAILROADER, THE (1943) — A II 7 c — AUDIO
26 min.
Safe methods of boarding and quitting standing cars and moving engines, setting and releasing different types of brakes, throwing switches and moving about among tracks.

2370. SAFE SWIMMING (1947) — A II 7e — GPP
10 min.; also color.*
Use of supervised areas for swimming safety; hazards of unsupervised areas. Safeguards recommended.

2371. SAFE TUBERCULOSIS NURSING (1950) — A II 1 l — VETS
20 min. **
Importance of asepsis in nursing of tuberculosis patients; proper protective measures.

2372. SAFER GASTRECTOMY (1946) — A II 1q — BURKE
15 min.; color; silent.
Illustration of method to obviate danger of post-operative disruption of duodenal stump in partial or sub-total gastrectomy. Surgical steps and anatomical landmarks on cadaver. Film progresses to point of closing stump, and inserting Alesen T-tube in stoma. Operation shown on patient who has had malfunctioning gastroenterostomy. Technique of sterilization of tube; its application; disintegration of tube shown.

2373. SAFEST WAY, THE (1948) — A II 7d — AAA
19 min.; also color.**
With help of teacher elementary school children plan their own safest way to school. Class has large map of area surrounding school; each child in turn draws on map route he follows to school, pointing out safety features (traffic lights, school patrol help, policemen, etc.). Teacher writes rules for safe walking onboard as they are brought out in class discussion. Each child makes individual map of his own way to school which he takes home for parents' approval. Film points out that there is a "safest way" anywhere: to church, to store, to movies, etc. Narrator, member of class, urges other school children to make "safest way planning" a project in their schools.

2374. SAFETY AHOY (1947) — A II 7e — AETNA
15 min.; color.**
Boating safety; how to handle rowboats, sailboats, motorboats; hazards. Right of way; rules for avoiding collisions.

2375. SAFETY BEGINS AT HOME (1946) — A II 7a — YAF
10 min.*
Important home safety principles applying to young children; typical safety hazards found in home; how they can be avoided.

2376. SAFETY IN THE CHEMISTRY LABORATORY (1949) — A II 7b — IND
15 min.*
How professional chemists use safe practices in experiments. High school students illustrate correct use of laboratory aprons, safety goggles, and laboratory manual. Read label on bottles, use a fume hood, avoid tasting

chemicals. College students perform more complex experiments; use more safety precautions. Some students play around laboratory, break equipment and interrupt experiments.

2377. SAFETY IN THE HOME √√ (1951) A II 7 a EBF
13 min.*
How little girl's negligence temporarily cripples mother, and leads to development of safety habits.

2378. SAFETY IN THE SHOP (1944) A II 7 c OE
(Problems of Supervision--481)
12 min.*
Typical shop accidents; how poor supervision or inadequate training may be real cause behind "accidents". Supervisor's responsibility in teaching and maintaining safe practices in shop.

2379. SAFETY ON! (1944) A II 7 e MichDC
11 min.; color; also silent, 15 min.**
How to handle hunting arms; results of improper firearms procedures.

2380. SAFETY PATROL (1938) A II 7d JamH
10 min.
Safety patrol boy on duty gives pedestrian safety rules.

2381. SAFETY SLEUTH (1944) A II 7c TFC-MGM
(Pete Smith Specialties Series)
10 min.*
How safety expert detects and eliminates causes of industrial accidents.

2382. SAILPLANE (1947) C VIII InstF
11 min.; also color.*
Peacetime gliding. With camera fastened to wings, a 250-pound motorless plane takes spectator on flight high over cliffs and ocean. The take-off, piloting, construction, assembly, wind-currents and landings.

2383. SALAMANDERS AND THEIR YOUNG C II IO-R
12 min.; color; silent.*
Jefferson's spotted, slimy, dusky, ted, two-lined, the newt, the mud puppy.

2384. SALMON STORY (1950) D III EBF
11 min.; color.*
Life cycle of salmon; how modern fisheries protect salmon supply; "purse seine" method of catching salmon; the catch from sea to cannery.

2385. SALT WATER WONDERLAND (1947) C II HL
9 min.; also color.
Marine life around a coral reef; antics of a playful porpoise.

2386. SAN FRANCISCO (1945) B I STATE
17 min.
Founding of the United Nations at San Francisco by delegates of fifty nations, in 1945. Purpose of organization set forth in UN charter.

2387. SANCTUARY OF THE SEALS (1940) C II TFC-20th Cent-Fox
(Adventures of Cameraman Series)
9 min.*
Seals on Pribilof Islands in the Bering Sea; life of these amphibians in their native habitat. The learning process of seal pups on land and in water. Commercial hunting and conservation of seals.

2388. SAND AND FLAME (1940) A VII GenM
20 min.**
How glass is made: automatic bottle-making; manufacture of fine glass tubing; glass made into fibres woven into cloth and tape; glass bricks for structural purposes; plate glass, including furnacing, rolling, cutting, grinding, polishing; shatterproof glass.

2389. SAND AND STEEL (1949) A VI 1 AlleLud
26 min.; color. **
Production of stainless and heat-resisting castings, from pattern making to mold making, melting, pouring, final finishing operations and testing.

2390. SANDFLY CONTROL (PMF 5028) (1947) A II 1 r USArmy-UWF
33 min.; color.**
Symptoms and treatment of skin diseases transmitted by sandfly; environmental sanitation principles essential to control.

2391. SANDING FLAT AND IRREGULAR SURFACES √ (1944) A VI 1 OE
(Woodworking--Sander--312)
19 min.*
How belt sander operates; how to prepare sanding belt; sand flat stock on belt sander; sand curved molding.

2392. SANITARY LAND FILLS (4-052) (1947) A II 3a CDC-UWF
18 min.; color.**
How garbage and waste disposal in sanitary manner is accomplished by well planned, well located, properly operated land fills. Economic and social benefits.

2393. SANITARY MARKET, THE√√(1947) A II 3 I.I-A.A.
9 min.; color only.
How disease spreads from unsanitary public market; how such a market may be kept clean.

2394. SANITARY MILK PRODUCTION ON THE FARM (4-099) (1950) D I 2 CDC
13 min.**

Comparison of procedures on dairy farm producing milk under sanitary conditions, with practices on another farm where the bacteria count in milk is unusually high; importance of cleaning and bactericidal treatment of milk utensils, keeping barn and barnyard clean, care of udder and teats, proper temperature of milk awaiting pasteurization, healthy herds and milk handlers.

2395. SANITARY STORAGE AND COLLECTION OF REFUSE (M4) (1952) — A II 3 a CDC
19 min.**
Operations essential to sanitary handling, storage, and collection of refuse from homes, restaurants, markets, and other places; importance of proper disposal of garbage and rubbish.

2396. SANITATION TECHNIQUES IN RAT CONTROL (M37d) (1951) — A II 36 CDC
(Rodent Control Series-Practical Rat Control I)
21 min.**
Why sanitary techniques cut down rat population by removing two essentials to rat life, food and harborage; how these techniques may be carried out.

2397. SATIN SLIPPERS (1950) — E II BF
51 min.*
Development of ballet in Australia from sketchy beginnings to present position; sections of "Corroboree": rhythm and tribal dances of Australian aborigines.

2398. SAVE THOSE TEETH √ (1949) — A II 2 EBF
11 min.*
Care of teeth; cleansing; effect of excessive use of refined sugar; use of sodium fluoride in prevention of tooth decay.

2399. SAWING A REVERSE CURVE AND A BEVEL REVERSE CURVE √(1944) — A VI 1 OE
(Woodworking--Band Saw--310)
18 min.*
How to select and lay out stock to avoid waste; reverse curves to contour lines; use table tilting gage to saw a beveled, reverse curve; and newel post having reverse curves.

2400. SAWING AN INTERNAL IRREGULAR SHAPE (1944) — A VI 1 OE
(Machine Shop Work--Metal--Cutting Band Saw--239)
32 min.*
How to drill saw starting hole; make saw selection; set up band saw machine; weld saw bands; saw internal contour shape; remove and store band saw.

2401. SAWING TEMPLATE METAL √ (1943) — A VI 1 OE
(Sheet Metal Work--Templates--128)
17 min.*
How to mount saw blade on band saw; select and adjust blade guides; saw to layout line; "chew out" metal from notch; and remove burrs.

2402. SAWING WITH JIG AND CHANGING BAND √ (1944) — A VI 1 OE
(Woodworking--Band Saw--309)
20 min.*
How to select proper band saw blades for job; adjust saw guides; mark stock and cut to mark; prepare jig; how to cut disks, using jig.

2403. SCARLET FEVER (1938-42) — A II 1d ACC-LEDER
35 min.; color; silent.**
Reel I. Child with scarlet fever is presented, showing rash, circumoral pallor, strawberry tongue and raspberry tongue. Scarlet fever differentiated from measles. Pneumonia patient exhibiting sulfathiazole rash; importance of differentiating scarlet fever from various drug rashes. Confirmation of scarlet fever rash by blanching test. Intradermal test for sensitivity to horse serum; plan for passive immunization with scarlet fever antitoxin. Importance of taking cultures from nose and throat emphasized.
Reel II. Table shows incidence of complications in presence of and in absence of treatment with antitoxin. Chart shows increasing incidence of complications with each day of delay in giving antitoxin. Large scale Dick testing; negative and positive reaction to test.
Reel III. Immune carriers, infected susceptibles, and non-infected susceptible individuals defined. Plan for active immunization with scarlet fever toxin presented.

2404. SCHISTOSOMA HAEMATOBIUM (Eggs and Miracidia) (1947) — A II 1c SAB
3 min.; silent.*
Eggs hatching in urine; movement of miracidia. Highly magnified ova shown; some in which miracidia are trying to break shell. Birth of an miracidium. Movement of miracidia by cilia and by bodily contractions. (Dr. Adrianus Pijpher, South Africa).

2405. SCHISTOSOMES IN THE PRIMARY HOST (4-063) (1948) — A II 1r CDC
7 min.; silent.**
In primary host, man or experimental animals (here rabbit and mouse), growth and development of schistosome can be observed. Migrating schistosomule found in lungs. Adolescent worms discovered at all stages of growth in portal veins of liver. Adult worms dissected from portal vein, especially from inferior mesenteric vein branches. Both male and female worms shown in various stages of development.

2406. SCHISTOSOMIASIS (PMF 5027) (1946) A II 1 r USArmy-P
27 min.; color.**
Three types of schistosomiasis, their geographical habitat, epidemiology, symptomatology, and general control measures. Various technical, clinical laboratory procedures necessary for treatment.

2407. SCHISTOSOMIASIS (SNAIL FEVER) (MF 1230) (1945) A II 1 r USArmy-P
9 min.**
General information on schistosomiasis (snail fever); its cure.

2408. SCHOOL, THE (1945) A I 1 STATE
24 min.
Public education in small town (U.S.A.) school where progressive teaching methods are used. Classroom activities at various age levels; health services; parent-teacher relations. Friendly relationship between teacher and pupils.

2409. SCHOOL ACTIVITIES AND YOU (1951) A I 1 CORONET
11 min.; also color.*
High school girl, in planning her school activity program, learns importance of choosing activities on basis of what she can learn, what her interests are, how much time she can give; how to arrange a well-balanced program.

2410. SCHOOL AND THE COMMUNITY, THE √ (1952) A I 1 McG-H
(American Public Education Series)
14 min.; also color.
Old-fashioned public school, isolated from community by disinterest, apathy and feeling that school and community are separate entities. School operates in cultural vacuum; students bored and indifferent; parents, teachers, school administrators and community members equally indifferent. How school and community can work together. How students can be taught how to earn a living in community, enjoy recreation, raise a family. How community can provide money for buildings, equipment, supplies, salaries. Use such a school can be to community.

2411. SCHOOL BUS OPERATION (1944) A VI 1 OE
(Automobile Operation and Maintenance--Bus Operation--494)
13, 14 min.*
Part I: Bus Care and Maintenance. Importance of daily and weekly maintenance checks; points to be checked; how to start, steer, and stop bus; how to double clutch; importance of safe driving habits.
Part II: Passengers--Driving Hazards--Safety. Driver's responsibility for safety of child passengers; safe driving habits and safety in handling children in getting on and off bus.

2412. SCHOOL IN CENTREVILLE (1950) A I 1 NatEARa
19 min.; color.**
Principles of good teaching demonstrated in rural school.

2413. SCHOOL THAT LEARNED TO EAT, THE (1948) A III 3 GMILLS
22 min.; color.**
Story of school children who learned to eat by working and playing together. Preplanning activities of faculty and community workers; mobilization of community resources; close cooperation between home and school; classroom activities. How school-community program brought about improvement in conditions that led to better health and nutrition. (Produced in collaboration with University of Georgia, College of Education).

2414. SCHOOLHOUSE IN THE RED (1949) A I 1 EBF
42 min.; color.*
Problems and role of school consolidation in modern education; activities of one-room school and modern consolidated school contrasted; how one community group solved its problem.

2415. SCHOOLS MARCH ON (1951) A I 1 MTFF
18 min.*
How one mid-western county (U.S.A.) eliminated outmoded one-room schools by reorganization and consolidation. Efforts of local educators and interested citizens achieved well-equipped, well-staffed schools, accessible to all the children.

2416. SCIENCE AND AGRICULTURE (THE SOYBEAN) √√ (1939) D I 1 EBF
(Food and People Series)
11 min.*
Soybean as example of ever-increasing importance of science and technology in agriculture. Application of science to increase land productivity, and to find new uses for farm products.

2417. SCIENCE AND SUPERSTITION (1947) A IV 5 CORONET
10 min.; also color.*
School children in class examine certain current superstitions in the light of research and experimental evidence to develop scientific method of thinking.

2418. SCIENCE AND WOOD UTILIZATION (1945) D I 5 CORONET
5 min.; also color.*
How science finds new uses for small size and second growth trees, root species, and the waste ordinarily occuring with conversion of trees into commodities.

2419. SCIENCE IN THE CORN ROWS (1952) — D I 1 — Pioneer
15 min.; color. **
Corn breeding staffs of commercial hybrid corn producers develop hundreds of new in-bred lines and thousands of crosses yearly; how they determine which to keep for further work. Standards of performance and tests new corns undergo before they reach commercial use or are discarded. Vocational agricultural class visits a corn breeding station.

2420. SCIENCE OF MILK PRODUCTION (1945) — D I 2 — RALST
46 min.; color.
Lecture and experiments demonstrating how raw materials are made into milk through biological processes, how cow gives milk; rules for increasing and improving milk production; importance of proper feeding habits of calves and cows for healthy offspring and optimum milk production.

2421. SCIENCE OF SOAP √√ (1948) — A VII — EBF
11 min.*
How soap is made from lye and fat; cleansing action of soap; manufacture of soap in industrial plant.

2422. SCOLIOSIS-METHOD OF CORRECTION AND FUSION (1951) — A II 1 q — SturG
30 min.; color. *
Surgical treatment of idiopathic scoliosis. Patient (fourteen year old girl) followed from entrance into hospital, through correction in turnbuckle jacket, to operation (arthrodesis of corrected curve). Nine months postoperatively patient shown getting along comfortably without spinal support. Degree of correction of various curves plotted on roentgenograms. (Drs. John R. Cobb, Philip D. Wilson).

2423. SCOTLAND: BACKGROUND OF LITERATURE (1947) — A IV 2 — CORONET
10 min.; also color.*
Association of familiar Scottish stories and poems with scenes of their origin.

2424. SCOUT IN THE FOREST, THE (1944) — D I 5 — BSA
26 min.; also color.*
Importance of forests, timber and byproducts; elements of scientific tree farming; how youth may help in forest conservation.

2425. SCOUT TRAIL TO CITIZENSHIP (1946) — A I 5e — BSA
36 min.; also color.*
Story of scouting from Cub through Senior to adult citizenship; how, through enjoyable experiences, normal scout activities prepare a boy to assume citizen's responsibilities.

2426. SCRAPING FLAT SURFACES √ (1942) — A VI 1 — OE
(Machine Shop Work--Bench Work--35)
14 min.*
Operations and procedures used in hand scraping flat surfaces to a surface plate. Five common forms of hand scrapers and operations and care of flat scraper in detail.

2427. SCULPTURE FROM LIFE (1950) — E X — AL-MO
10 min.; color also.*
Grant Beach completes life-size head, working from a posed model. Massing of raw clay by the additive method; posing model at various angles; building clay to rough form. Method of forming eye sockets, building nose, marking sculpture for center, separate forming and application of ears, in detail.

2428. SEA, THE (1933) — C II — TFC
(Battle for Life Series)
10 min.*
Under-water photography of under-sea life: sea worms, crabs, sea anemones, sea urchins, octopus.

2429. SEA URCHIN, THE √ (1949) — C II — UWF
(Zoology Series)
10 min.
Life cycle of urchin; structures of male and female compared and process of fertilization shown. Segmentation observed, differentiation into layers, with formation of body cavity. Metamorphosis of larva into adult shown in animated diagrams.

2430. SEARCH FOR SECURITY (1946) — A VII — ILI
17 min. **
History of life insurance. How present day life insurance works. Versatility of life insurance shown in case studies.

2431. SEASHORE LIFE (1950) — C II — EBF
11 min.; color.*
Life on three kinds of seashores--sandy beach, rock pool, mud flat. How seashore animals adapt to survive their special environments.

2432. SEASHORE WONDERLAND (1947) — C II — HOLST
9 min.; color.*
Sea life studied in detail along shoreline, coast of southern California: sea anemone; nudibrank; sea urchin; hermit crab; sea cucumber; yellow snail; sand starfish; octopus.

2433. SEASONAL CHANGES IN TREES (1949) — C III — CORONET
10 min.; also color.*
Seasonal story of the changes in trees; classification, seasonal aspects, observation stressed.

2434. SEASONS, THE (1948) — C I — TFC
22 min.; also color.
Reasons why seasons change throughout year: tilt of earth's axis; rotation of earth upon its

axis; revolution of earth around sun; effects of these movements upon sun's rays.

2435. SEASONS, THE (1947) C I
10 min. * UWF-GB
Rotation of earth and its movement round sun, reviewed. Connection between sun's angle of incidence and temperature distribution treated diagrammatically. Movements of the earth in space portrayed; effects of tilting of axis, demonstrated between hot equatorial regions and cold polar regions. Why there are two zones having marked cool and warm seasons at opposite times of the year. Variations in length of day and night explained.

2436. SECRET OF THE FJORD C VI
(1942) TFC-20th CentFox
10 min.
Photographic record of Father Hubbard's expeditions to an Alaskan fjord and glacier to study remnants of Ice Age.

2437. SECRETARY TAKES A VI 3
DICTATION (1947) CORONET
10 min.; also color.*
Employer, points out "little things" that are sources of his satisfaction in his secretary's work; contrasted with irritation caused by inexperienced stenographer.

2438. SECRETARY TRANSCRIBES A VI 3
(1947) CORONET
10 min.; also color.*
Details involved in transcribing. Practice needed to command skills and habits of thought that make good secretary. Importance of organization pointed out; specific devices for efficient transcription demonstrated under actual working conditions.

2439. SECRETARY'S DAY A VI 3
(1947) CORONET
10 min.; also color.*
Secretary's responsibilities: taking dictation, transcribing, making appointments, receiving callers, planning employer's itinerary, securing his reservations. Specific office techniques, beyond knowledge of typing and shorthand, that distinguish secretary from stenographer.

2440. SECTIONAL VIEWS AND PROJECTIONS, FINISH MARKS √ A VI 1
(1944) OE
(Machine Shop Work--Blueprint Reading--54)
15 min.*
Different types of lines; dimensions, center, cross section, and object; projection of sectional view; locations and uses of finish marks; meanings of standard cross-section lines denoting types of materials.

2441. SECTIONS √ (1948) A VI 1
(Mechanical Drawing Series, Part II) McG-H
10 min.
Purpose of sectional views; how constructed; symbols. Types of sectional views.

2442. SECTIONS AND CONVENTIONS (1947) D II
(Engineering Drawing Series) McG-H
15 min.
How sectional views are used to simplify presentation of important interior details of an object; special symbols used in sectioning; principles and practices followed in constructing sectional views.

2443. SEE BETTER: HEALTHY EYES (1951) C II
10 min.; also color.* CORONET
General information on structure and function of human eye; care of eyes.

2444. SEED CERTIFICATION IN NEBRASKA (1949) D I 3
31 min.; color.* UofNeb
How agricultural economy depends upon equality of crop seed used; how superior crop varieties are obtained through research by United States Department of Agriculture and and State Experiment Station workers; history of Nebraska seed certification law; how Nebraska Crop Improvement Association operates to maintain genetic superiority of crop varieties through system of seed certification.

2445. SEED DISPERSAL √√ C III
(1931) EBF
11 min.*
Various means (dispersal by wind; transportation by animals, propulsion from seed cases) by which seeds are scattered; how they anchor to ground (clamping, hooking, adhesion, corkscrew) to facilitate germination; how they protect themselves while sprouting.

2446. SEED DISPERSAL (1950) C III
(Botany Series) UWF-GB
18 min.*
Plant devices that scatter, plant and protect seeds. Seed dispersal by means of wind, animals, exploding fruits, seed burial.

2447. SEEDS OF DESTRUCTION D I 1
(1948) EBF
(Living Earth Series)
10 min.; color.*
How man is depleting soil and forest resources upon which his survival depends; wealth of America's original resources, much wasted by forest fire, flood, erosion, overwork of land. Effective conservation measures needed.

2448. SEEING EYE, THE A II 6
(1941) TFC-Warner
21 min.*
Story of training (at Morristown, N. J.) of German sheep dogs who learn to lead the blind.

2449. SEEING GREEN (1938) A II 7d
9 min. JamH

What traffic lights contribute to traffic control; construction details and method of operation. Different types of traffic lights. Need for standardization of lights, in interest of safety.

2450. SEEING THE UNSEEN (1936) — C VIII MIT
12 min.; silent. *
Explorations of world of motion, invisible to unaided eyes. Formation and splashing of milk drops, including formation of large bubble; shaper cutting metal; splash of iron in brine; flow of water from jug; sewing machine; breaking of cups on floor; human muscles in action; humming birds in flight.

2451. SEIZURE: MEDICAL TREATMENT AND SOCIAL PROBLEMS OF EPILEPSY (1951) — A II 6 VETS
45 min. **
Common clinical manifestations of epileptic seizures; diagnosis and medical control. Social and occupational problems arising out of unwarranted social stigma attached to epilepsy. Epileptics' need for socio-economic adjustment as integral part of total medical care.

2452. SELECTING HENS FOR EGG PRODUCTION (1950) — D I 2 USDA
5 min. **
Principles and importance of selecting "producers" among laying hens. Desirable and undesirable birds differentiated; best culling practices illustrated.

2453. SELECTING THE RIGHT INDUSTRIAL DISTRIBUTION SYSTEM (1948) — A VI 1 WestH
20 min.; color. **
Major basic distribution systems commonly used in U. S. A. Advantages and disadvantages of each.

2454. SELECTION OF DIMENSIONS √ (1947) — D II McG-H
(Engineering Drawing Series)
20 min.
Principles governing choice of dimensions; meaning of symbols; technique of application. Importance of standardization.

2455. SELF-CONSCIOUS GUY (1951) — A II 4 c CORONET
11 min.; also color. *
Boy learns to overcome self-consciousness through developing skills, thinking of other persons, focusing whole attention on situation.

2456. SELLING AMERICA √ (1939) — A VI 1 JamH
21 min.
How Benjamin Franklin's principles of human association influence selling techniques and help in training all types of salesmen. How observance of rules laid down by Franklin helps sell personalities, ideas and merchandise illustrated in series of modern selling situations. Franklin's precepts applied to selling merchandise and intangibles.

2457. SEMIAUTOMATIC AND HAND MOLDING OF INTRICATE PARTS √ (1944) — A VI 1 OE
(Plastics--471)
16 min. *
How to mold a part with undercuts; with complicated shape; assemble and disassemble a hand mold.

2458. SEMINOLE INDIANS (1951) — A IX 1 UMINN
10 min.; color.
Seminole life on hummocks of Everglades in Florida; serious study of Seminoles as they live and work in natural surroundings.

2459. SENDING RADIO MESSAGES √ √ (1943) — B VI 4 EBF
11 min. *
Basic principles of radio transmission; importance of radio in modern living. Operation of microphone, transformer, modulator. Direct, alternating and voice currents; carrier wave; amplification. (Some footage on military use of radio).

2460. SERIES AND PARALLEL CIRCUITS √ √/ (1944) — C VIII EBF
(General Science Series)
11 min. *
Relationships between resistance, current, electromotive force in series and parallel circuits. Advantages, disadvantages of both types.

2461. SERVANT OF MANKIND (1940) — A IX 1 TFC-MGM
9 min. *
Pictorial biography of Thomas A. Edison; his achievements and their effect upon home and industrial life.

2462. SERVANT OF THE PEOPLE (1937) — A IX 1 TFC-MGM
21 min. *
Confusion which existed in the nascent United States under the Articles of Confederation; sessions of Convention of 1787 in which the Constitution of the United States was prepared and adopted. Individual contributions made by various early leaders, particularly Benjamin Franklin; methods used to arrive at conclusions which established unity in the government.

2463. SERVICE PROCEDURE FOR BALL BEARINGS (1948) — A VI 1 GenM
20 min. **
Right and wrong ways to service ball bearings; how to remove, clean, inspect, lubricate, and re-install bearings. Techniques which apply equally to ball bearings in automobiles, machines, appliances.

2464. SERVICING A PROPELLER (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--277)
18 min. *
How to inspect and remove propeller; repair damage to metal edges; check track and correct for out-of-track; check for horizontal and vertical balance; correct for out-of-balance; reinstall propeller.

2465. SERVICING AN AIRPLANE (1944) A VI 1 OE
(Airplane Maintenance--Preventive Maintenance--279)
17 min. *
How to perform various routine servicing operations on light airplane including proper and safe methods of pushing plane on ground, cleaning airplane, refueling, changing oil, inflating tires, starting engine.

2466. SERVICING AND TIMING MAGNETOS (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--266)
16 min. *
How to remove magnetos from engine and install and adjust new points; importance of ignition timing; how to reinstall and time magnetos.

2467. SERVICING SPARK PLUGS AND IGNITION WIRING (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--265)
22 min. *
How to remove spark plugs and ignition wires; clean, inspect, and adjust spark plugs; prepare new ignition wires; reinstall spark plugs and wires.

2468. SERVICING WATER COOLED CONDENSERS (1944) A VI 1 OE
(Refrigeration Service--451)
12 min. *
Theory of counter-flow condenser, essential elements of water cooled system, and operation of electric water valve.

2469. SETTING OF ENDEMIC SCHISTOSOMIASIS IN PUERTO RICO, THE (4-065) (1948) A II 1 d CDC
3 1/2 min. **
Principal patterns of infection characterizing endemic schistosomiasis in Puerto Rico.

2470. SETTING UP AND MACHINING BAR STOCK √ (1944) A VI 1 OE
(Machine Shop Work--Turret Lathe--215)
34 min. *
How to set up turret lathe for production machining of bushings from bar stock; install collet; set up hexagon turret; and cross slide.

2471. SETTING UP THE PRESS AND MOLDING A PART √ (1944) A VI 1 OE
(Plastics--472)
16 min. *
What happens in plunger cylinder, heating cylinder, and mold during injection molding; how to set up injection molding press for specified job; how to maintain operating cycle and prevent damage to mold and press.

2472. SETUP FOR FACE MILLING WITH A FIXTURE √ (1944) A VI 1 OE
(Machine Shop Work--Horizontal Boring Mill--225)
20 min. *
How horizontal boring, drilling, and milling machine operates; how to install fixture; set up workpiece; select and install end mill and face mill.

2473. SETUP FOR ROUGH LINE-BORING √ (1944) A VI 1 OE
(Machine Shop Work--Horizontal Boring Mill--228)
15 min. *
How to position workpiece on table; position spindle for horizontal centers; position spindle for vertical centers.

2474. SEVEN LITTLE DUCKS (1949) C II
10 min.; also color. * BAILEY
Six year old girl helps to care for family of Muscovy ducks, pets in her backyard. Simple methods of feeding, watering, housing and fencing in, for protection.

2475. SEWAGE DISPOSAL (1930) A II 3a
11 min.; silent. * EBF
Sources of home and industrial wastes. Procedure for direct disposal into ocean. Purification by Imhoff tank and sprinkling filter and sand filtration. Purification in streams illustrated by microscopic examination of water at various points along stream. Single-celled animals which feed upon bacteria, "water fleas" which feed upon single-celled animals, and minnows which feed upon "water fleas".

2476. SEWAGE TREATMENT (4-078) (1948) A II 3a CDC
5 min. **
Some processes and equipment commonly employed by communities for sewage treatment: Screening, grit settling, settling of solids, sludge digestion, sludge drying, sometimes chlorination of effluent. Biological transformation of organic matter remaining in liquid drawn from top of primary settling tank. After all treatment processes, remaining liquid is clean effluent which can be discharged with little danger of pollution.

2477. SEWING: ADVANCED SEAMS (1948) A III 2 YAF
10 min. *
How to sew four advanced seams: French seam, flat fell seam, the tuck, the welt seam.

2478. SEWING: FUNDAMENTALS (1948) A III 2 YAF
10 min. *
Function and use of some of the fundamental tools used in sewing: thimbles, pins, needles, threads, tape measures, measuring gauge, tailors chalk, scissors, shears, pressing irons, pressing cloths and pads, sewing machine.

2479. SEWING: HANDLING MATERIALS (1948) A III 2 YAF
10 min. *
Characteristics of cotton, woolen, synthetic fabrics and how to handle them in dressmaking. How to select fabric, basing choice on garment to be made, its purpose, pattern to be followed, and ability of seamstress.

2480. SEWING: PATTERN INTERPRETATION (1948) A III 2 YAF
10 min. *
Markings and instructions used in best known commercial patterns for garment making; how to apply in cutting pattern.

2481. SEWING: SIMPLE SEAMS (1948) A III 2 YAF
10 min. *
How to sew six simple seams: plain, edges pinked; plain, edges overcast; plain, edges stitched; plain, edges bound; plain, catch-stitched; plain, top-stitched.

2482. SEWING: SLIDE FASTENERS (1948) A III 2 YAF
10 min. *
Step-by-step process of fitting and sewing a slide fastener in a blouse, a skirt, a dress.

2483. SHADES OF GRAY (PMF 5047) (1948) A II 4 d USArmy-UWF
67 min. **
Mental disorders which may be experienced during training and combat; mild anxiety states; obsessive-compulsive neuroses; psychosomatic disorders to severe reactions and paranoid psychoses.

2484. SHADOWS AND ECLIPSES (REFLECTION) (1951) C VIII UWF-GB
(Light Series)
10 min. *
Some sources and properties of light; formation of shadows and eclipses; photographs of sun in total eclipse, sun's corona, earth's shadow moving across moon; law of reflection.

2485. SHAPE AND MOTILITY OF BACTERIA (1947) A II 1c SAB
45 min.; silent. *
Photomicrographs of Eberthella typhosa showing flagella; electron micrograph of E. typhosa; author's technic for darkground cinemicrography. E. typhosa grown in nutrient broth; in peptone water. Author's thesis is that neither tails nor flagella are motor organs of bacteria. Action of bacteriophage on E. typhosa. (Dr. Adrianus Pijpher, South Africa).

2486. SHAPE DESCRIPTION √ (1948) A VI 1 McG-H
(Mechanical Drawing Series I)
11 min. each.
Part I. Theory of orthographic projection explained by animated diagram and photography of models which give three dimensional effect. Part II. Step-by-step construction of a drawing, establishing basic principles of prodedure. Importance of clarity, accuracy, legibility stressed.

2487. SHAPING AFTER TEMPLATE AND SHAPING CURVED EDGES √ (1944) A VI 1 OE
(Woodworking--Spindle Shaper--319)
17 min. *
How to make template for job; install knives in spindle; use template when smoothing squared edges; set up equipment for shaping curved edge; shape curved edge.

2488. SHARING ECONOMIC RISKS (1947) A VII CORONET
10 min.; also color. *
How insurance works. Insurance terms defined. Economic risk; property and life insurance illustrated.

2489. SHARING WORK AT HOME (1949) A VI 2 CORONET
10 min.; also color. *
Importance of cooperation to happy family life.

2490. SHARPENING A FORM RELIEVED CUTTER √ (1943) A VI 1 OE
(Machine Shop Work--Cutter Grinder--93)
18 min. *
What constitutes rake angle and clearance angle of form relieved cutter; how to mount correct attachment; to set up for spotting the back of the teeth and grind face of teeth.

2491. SHARPENING A PLAIN HELICAL CUTTER √ (1943) A VI 1 OE
(Machine Shop Work--Cutter Grinder--91)
16 min.
How to mount helical cutter on an arbor; grind secondary clearance angle; check and adjust for taper when grinding primary clearance angle.

2492. SHARPENING A SHELL END MILL √ (1943) A VI 1 OE
(Machine Shop Work--Cutter Grinder--92)
17 min. *
How to select correct arbor; mount work head; adjust work head for clearance setting; set up for sharpening outside diameter, corner, and face.

2493. SHARPENING A SIDE MILLING CUTTER √ (1943) (Machine Shop Work--Cutter Grinder--90) 23 min. * — A VI 1 OE

How to identify parts of cutter; select and mount correct grinding wheel; mount cutter; set up grinder for sharpening; set correct clearance angle and check for correct width of land.

2494. SHARPENING AN ANGULAR CUTTER √ (1943) (Machine Shop Work--Cutter Grinder--94) 15 min. * — A VI 1 OE

How to choose correct grinding wheel; adjust swivel table for grinding angular teeth of cutter; adjust clearance angle; check teeth for accuracy of angle.

2495. SHE ALSO SERVES (1950) (Health series) 22 min. * — A II 1 1 NMP

Work of public health nurse; her education and training. Service as community nurse; cooperation with research scientists, social workers, hospital, health center, physicians, etc. Illustrations of work in detection and treatment of disease; how she keeps abreast of medical and surgical developments. Her place and importance in community.

2496. SHEARING THE FARM FLOCK √ √ (1951) 15 min. ; silent. * — D I 2 SunbeC

Step-by-step process of shearing sheep by method followed in Australia and western United States. Types of shearing machines named.

2497. SHEEP SHEARING (1943) (Farm Work--Livestock--199) 21 min. * — D I 2 OE

How to handle sheep for shearing; step-by-step procedure in shearing; method of rolling and tying the fleece.

2498. SHEET METAL WORKER (1942) 11 min. * — A VI 5 MAHNKE

Sheet metal work performed by hand and by machinery. What worker must know to be proficient as layout man; must be adept at handling tools. U.S. Government requires that sheet metal workers have high school education or equivalent. Jobs in field: furnace manufacturing and repair, operation of sheet metal brake, metal roof, gutter, skylight and ventilating installations, air conditioning, etc. Aircraft manufacturing; patterns for airplane "skins"; various hand forming operations, assembly operations, riveting; specialized types of welding and soldering.

2499. SHELL FISHING (1938) 11 min. * — D III EBF

Work of shell-fishermen; catching, canning, packing, marketing shell-fish (lobsters, crabs, clams, oysters).

2500. SHELL MOUNDS IN THE TENNESSEE VALLEY (1937) 21 min. ; silent. ** — C VI TVA

Excavations of shell mounds found along Tennessee River in lower portion of Tennessee Valley.

2501. SHEP--THE FARM DOG √ √ (1939) 11 min. * — D I 3 EBF

Daily activities of collie on farm: takes cows to pasture, routs chickens from garden, eats breakfast, buries bone. Goes for walk and swim with young master; retrieves stick and helps master swim ashore.

2502. SHIPBUILDERS OF ESSEX (1950) 20 min. — A IX 1 STATE

Essex, Massachusetts, where ancient craft of handbuilding wooden ships is principal industry. Construction of seventy-foot trawler. Life and customs of town. Careful workmanship and pride of shipbuilders in their crafts, stressed.

2503. SHOOTING IN BASKETBALL (1946) 11 min. — A V 2 EBF

Fundamentals of effective shooting in basketball: two-handed set shot; major factors for all types of shots. Correct stance, aim, throwing action, finger-tip control, propulsion, follow-through. Medium-arc trajectory.

2504. SHOP PROCEDURES √ √ (1948) (Mechanical Drawing Series I) 17 min. — A VI 1 McG-H

How finished drawings are used as instructions in manufacturing; basic machines. Accurate, legible, comprehensible drawings aid cooperation in production.

2505. SHORT STOPS (1940) 9 min. — A II 7d JamH

Operation of perfected hydraulic brake explained; effect of speed and road surface on stopping distance; how to use brakes most effectively for smooth and safe steps.

2506. SHORTEST WAY HOME (1947) 34 min. ; color. ** — A IX 1 GREYH

Returning veteran sees his own country in looking up members of his old bomber crew. Points of interest shown: Minnesota (rice-gathering Indians); Mackinac Island; Detroit auto plants; Greenfield Village; Cincinnati, Ohio River, Kentucky horse farms; Pennsylvania Turnpike; Boston; Concord, "Rude Bridge"; Lexington, historic Green; Colonial Williamsburg, Virginia; Great Smoky Mountains; Miami, Bok

Tower; Florida (Seminole Indian village); Downtown Memphis, Tennessee; New Orleans, the Mississippi; Texas cattle ranch and round-up; Hollywood, movie lots; San Francisco, Golden Gate; Yellowstone National Park; Salt Lake City.

2507. SHOT PUT (1947) A V 2
10 min. * UWF
Styles to fit varying physiques; control of tension; one, two, three rhythm; exercises; finger and hand grip; finger and wrist snap; foot positions; progressive tension and effort; explosive hip snap.

2508. SHY GUY (1947) A II 4 c
13 min.; color. * CORONET
How a different boy, lonely in a new school, is helped to make and enjoy real friendships. Guidance in social adjustment for youngsters and their parents.

2509. SIDE FRAMES: SUB-ASSEMBLY OF A WEB FRAME (1942) A VI 1 OE
(Shipbuilding--Shipfitting--27)
17 min. *
Work of shipfitter in sub-assembling side frame; correct method of reversing templates; procedures used in locating and laying off buttock lines, stiffeners, lightening holes, and pipe openings.

2510. SIDE-TO-SIDE ANASTOMOSIS OF PORTAL VEIN TO VENA CAVA (1948) A II 1 q SturG
10 min.; color; silent. *
Surgical procedure of side to side anastomosis of portal vein to vena cava for porta hypertension. (Dr. Arthur H. Blakemore).

2511. SIGHTSEEING AT HOME (1943) B VI 5 GE
15 min.; also 35 mm. **
Television explained. Telecast used to demonstrate steps from camera pick up to picture produced on screen: how light strikes television plate in camera, is transformed into electric charges, transmitted in single file over air at four million impulses per second. Thirty complete pictures per second give illusion of movement on screen.

2512. SIGMOID, RECTUM AND ANAL CANAL ENDOSCOPIC VIEWS (1950) A II 1 o Garner
28 min.; color. *
Protoscopic views of rectal and colonic disease: diverticulosis, melanosis coli, anal infection, lymphogranuloma venereum, tuberculous enterocolitis, chronic ulcerative colitis, polyp with fulguration and carcinoma of the rectum. Normal bowel mucosa.

2513. SILICATE CEMENT (1947) A II 1 e 5
19 min.; color. * COM-BS
Clinical significance of physical properties of silicate cement; effect of technique on setting time, strength, solubility, staining, shrinkage demonstrated.

2514. SILK SCREEN PRINTING (1946) A VI 3 LibFilms
20 min.
Various uses of silk screen printing: for posters, mats, displays, art reproductions on fabrics. How to make screen; how to cut stencils; how to strip areas off stencil. Use of lacquer, squeegee. How to clean screen, frame, squeegee and remove paint for future use. How to make multicolored print. Tools used.

2515. SILVERSMITHING (1946) A VI 1
20 min. LibFilms
Basic processes in silversmithing. Designing and making silver ornaments. Necessary tools indicated. Step by step procedure in making a silver bracelet and a silver ring. Jewelry designs pictured.

2516. SIMILAR TRIANGLES √√ (1947) C VII 3 KB
(Practical Geometry Series)
12 min. Also rental in U. S. A.
Properties of similar triangles; 'two angles equal' proposition demonstrated; applied in new geometric situation.

2517. SIMPLE ANTERIOR CLOSURE OF COLOSTOMY (PMF 5005) (1947) A II 1 q USArmy-P
17 min.; color. **
Incomplete colostomy of transverse colon; relatively simple procedure; advantages of intraperitoneal approach.

2518. SIMPLE ANTERIOR CLOSURE OR TRANSVERSE COLOSTOMY (RIGHT SIDE) (PMF 5069) (1947) A II 1 q USArmy-P
23 min.; color. **
Right side colostomies, less frequent than left side colostomies; similarity of procedures followed in anastomosis; typical problems and applicable surgical techniques; developments in surgical management of colostomies.

2519. SIMPLE BLOCK PRINTING (1940) A V 1 BF
10 min.; also silent (15 min.)*
Examples of block printing; process of making such prints demonstrated. Tools needed; work of each.

2520. SIMPLE CERAMICS (1950) EX
10 min.; color. * AL-MO
Making fruit bowl by hammock-mold method, with ordinary potter's clay and simple tools. Each step explained and demonstrated.

2521. SIMPLE MACHINES √√ (1941) C VIII EBF
(General Science Series)
11 min. *

Six basic machines: inclined plane, wedge, screw, lever, windlass, pulley. Their application to modern, complex machinery. Mechanical principles involved. (Some equipment shown is out of date.)

2522. SIMPLE SLAB METHODS (1948) EX IND
(Craftsmanship in Clay Series I)
10 min.; color.*
Three slab methods of pottery-making demonstrated Wedging; candle-holder formed directly from lump of clay. Rolling slab for simple tile. Constructing flower container from several pieces of clay. Correct use of basic tools emphasized.

2523. SIMPLE STUNTS (1946) A V 2
10 min.; also color.* CORONET
Twenty-three stunts for strength and skill, requiring little equipment (wands and mats or sod), demonstrated (slow motion photography). Safety precautions emphasized.

2524. SINEWS OF STEEL (1941) A VII
45 min.** BETH
Design, production, and application of wire rope; drawings and close-ups show intricacies of wire-rope engineering.

2525. SING A SONG OF FRIENDSHIP √ (1948) B II ADL
10 min., each (two parts); color.
Six songs (music and words by Irving Caesar) for community singing: (1) We Have a Law; (2) Thomas Jefferski; (3) Our Football Team; (4) Let's Make the World of Tomorrow Today; (5) It is Always Music to His Ear; (6) We'll Soon Be One World. Cartoon.

2526. SINGLE PHASE AND POLYPHASE CIRCUITS √ (1944) A VI 1 OE
(Electrical Work--Electrical Machinery--383)
17 min.*
Single-phase synchronous generator explained, sine curves illustrate flow changes, two-phase system and three-phase system; ways to simplify wiring in both systems.

2527. SINGLE RAM VERTICAL SURFACE BROACHING √ (1944) A VI 1 OE
(Machine Shop Work--Broaching Machine--237)
28 min.*
Parts of single ram vertical machine; how to install broaching inserts for straddle broaching; mount toolholder with its assembled broaching tool; mount, adjust work fixture; and surface-broach at production rate.

2528. SITTIN' PRETTY (1946) E VIII
20 min.; color. UWF
Rudolph Coats demonstrates techniques of oil portraiture. Poses subject, explaining reasons for choice of pose. Rough composition sketch; preliminary drawing; color strokes. Use of oil, mixing and applying colors, explained.

2529. SIZE DESCRIPTION √ √ (1948) A VI 1 McG-H
(Mechanical Drawing Series I)
16 min.
Factors governing choice and placement of dimensions, described; symbols explained.

2530. SKI DE FRANCE (1949) A V 2
24 min.; also 35 mm.* AF
Instruction in and explanation of basic tenets of French method of skiing, introduced in United States by Emile Allais. Performances and graphic positions of skiers executing diagonal downhill run, oblique side-slipping, hallows and bumps, uphill and downhill christiania and racing competitions.

2531. SKI FLIGHT (1937) A V 2
10 min.* TFC-Warner
Using slow motion sequences, Otto Lang demonstrates six fundamentals of skiing according to the Arleberg technique of Hannes Schneider system: Schuss, snow plow, snow plow turn, stem turn, stem christiania, parallel christiania.

2532. SKI NOVICE (1947) A V 2
9 min.; also color.* HL
Learning to ski from a book contrasted with learning to ski under an instructor.

2533. SKI SAFARI (1947) A V 2
9 min.; also color. HL
Slalom races, championship jumping, spectacular skiing; Sun Valley, Mt. Lassen.

2534. SKI TIPS (1948) A II 7e
22 min.; color.** AETNA
Safe skiing practices illustrated (Franconia Notch, New Hampshire); basic safety rules for slopes and "trail". Work of National Ski Patrol System.

2535. SKIFULLY YOURS (1949) A V 2
23 min.; color.** FORD
Olympic stars in ski runs and jumps, at Sun Valley, Idaho. Skilled instructor demonstrates skiing technique. Evening relaxation in the lodge.

2536. SKIN ANTISEPTICS-EVALUATION OF EFFECTIVENESS OF SOME WIDELY EMPLOYED ANTISEPTICS (1948) A II 1c CIEB
30 min.**
Properties chemical antiseptics should have: (1) High bactericidal activity, (2) low tissue toxicity, (3) freedom from specificity, i.e. should attack wide range of microorganisms, (4) rapid action, (5) penetration, (6) effective in the presence of organic matter, (7) safety margin on dilution, (8) stability, (9) ease of application, (10) readily available, (11) low cost, and (12) color, to delineate area treated. How to test compounds for their effectiveness as skin antiseptics. Results from testing seven commonly used antiseptics (as published in scientific journals) given in tabulated form.

2537. SKINGRAFTING OF EXTENSIVE BURNS (1951) A II 1 q EATON
21 min.; color. **
Detailed modern technique as used at University of Kansas Medical Center in preparing severe burns for skin grafting and their grafting.

2538. SKIP TO MY LOU (1951) A V 2 IND
(Recreational Game Series)
5 min. *
Fifth-grade children demonstrate singing game Skip to my Lou. Introductory action; words in animation; followed by demonstration in detail.

2539. SKY IS THE LIMIT, THE (MF 1249) (1946) A II 6 USArmy-P
14 min.; color. **
Phases of rehabilitation that apply to above knee amputee; proper walking technique.

2540. SLEEP FOR HEALTH √ (1950) A II 2 EBF
(Keeping Healthy Series)
11 min. *
Importance to child of regular sleeping habits; child's own responsibility for forming good habits; dreaming as normal part of sleeping; how lack of sleep interferes with enjoyment of everyday living.

2541. SLIDE RULE, THE √ (1944) D II OE
Multiplication and Division
(Engineering--The Slide Rule--179)
24 min. *
"C" and "D" scales of slide rule, parts and markings; how to use scales for multiplication, division, and combination of operations.

2542. SLIDE RULE, THE √ (1944) D II OE
Percentage, Proportion, Squares and Square Roots
(Engineering--The Slide Rule--354)
21 min. *
How to use "B" and "C" scales of slide rule to calculate proportions and percentages; how to calculate squares and square roots; how to determine placing of decimals.

2543. SMALL TOWN LIBRARY (1951) A I 2 USArmy-UWF
10 min.
How small branch library is served weekly by truck delivery from big city library.

2544. SMALLPOX AND VACCINATION (1939) A II 1j NYH
28 min.; color. **
Smallpox cases as observed in 1939 outbreaks in New York State, including case of malignant smallpox (variola vera); modern technic of vaccination and reactions. (For professional groups only).

2545. SMALLPOX, THE EVER PRESENT MENACE (1941) A II 1j BF
10 min. *
Necessity of vaccination and revaccination as only sure preventative of smallpox. Dangers of smallpox.

2546. SMILE OF THE BABY, THE (1947) A II 4 c SPITZ
(Studies-Problems in Infancy)
30 min.; silent. *
Experimental study of first stage of infant's response to another human being; babies two to six months old from group of one hundred fifteen unselected children. Importance of parental love in creating special atmosphere about baby which he associates with pleasure, play, food, relief from discomfort.

2547. SMILING RESPONSE, THE (1948) A II 4 c SPITZ
(Studies-Problems in Infancy)
20 min.; silent. *
Excerpt from the film "The Smile of the Baby," described in this catalogue (experimental portion).

2548. SMITHSONIAN INSTITUTION, THE (1939) A I 2 TFC-Columbia
(Washington Parade Series)
10 1/2 min. *
Exhibits on view in Smithsonian Institution, Washington, D. C.

2549. SMOKE EATERS (1947) √ √ A VI 5 RKO
Campanas y Sirenas (Spanish)
17 min. *
Development of fire-fighting techniques from early bucket brigade through steam pumper, three horse-power hook and ladder to fine, modern fire-fighting equipment. Training of firemen; what happens from first alarm to completion of job; fire-fighting shown and explained; typical fire analyzed. Detection and arrest of a "fire bug" dramatically pictured.

2550. SNAKES (1947) C II CORONET
10 min.; also color. *
Life habits and adaptations of representative reptiles. Poisonous varieties distinguished from harmless. Value of latter to man. Their equipment for locomotion, sensation, nutrition, reproduction.

2551. SNAKES--FRIENDS AND FOES (1950) C II MissoC
23 min.; color. **
Poisonous and non-poisonous snakes found in Missouri; identification features, habits, and values.

2552. SNAP OUT OF IT! (1951) A II 4 c CORONET
(Emotional Balance)
13 min.; also color. *
High school principal helps student learn to set his expectations realistically to avoid disappointments; how unavoidable disappointments may be used in positive attack on problems.

2553. SNAPPING TURTLE √ √ (1940) C II
11 min. * EBF
Lifecycle of turtle; its struggle for existence and survival.

2554. SNEEZE, THE (1940) A II 1c
4 min.; silent. * SAB
Taken by high speed photography at 700 exposures per second, four sneezes shown. Thousands of droplets containing bacteria expressed. Most droplets not expelled farther than two or three feet. Some droplets fall to ground, others evaporate in air. Evaporation of droplets in air leaves bacteria suspended. Such air-borne bacteria may be carried great distances. Both droplets and air-borne organisms may be infectious. (Dr. M. W. Jennison).

2555. SNOW RANGER (1951) D I 5
15 min.; color. USDA
How United States Forest Service and National Ski Patrol cooperate for the enjoyment and safety of winter sports enthusiasts (skiers). Facilities available on ski areas of United States. Skiing class; how skiers are safeguarded from their own possible errors.

2556. SOCCER FOR GIRLS A V 2
(1946) CORONET
10 min.: also color. *
Traps, dribbles, passes; tackling, blocking, volleying; fouls; goalkeeper's privileges. Application to playing situations. Regular photography, close-ups and slow motion.

2557. SOCIAL ADJUSTMENT OF A II 6
APHASIC PATIENT (1950) VETS
(Series on Aphasia)
25 min.; color. **
Problems of social reorientation encountered by aphasic patient met by group psychotherapy, corrective physical therapy, retraining of language function. Widened interest and regained confidence necessary to readjustment to living in normal environment.

2558. SOCIAL ADJUSTMENT OF A II 6
THE BLINDED USArmy-UWF
SOLDIER (PMF 5035) (1946)
27 min. **
Methods used in helping blinded soldier become adjusted to his handicap.

2559. SOCIAL COURTESY (1951) A VI 4
10 min.; also color. * CORONET
How young people may improve social manners, appreciate difference between formal and informal events, learn "right thing to do."

2560. SOCIAL DANCING (1947) E II
10 min.; also color. * CORONET
Two basic foxtrot and waltz steps, with three simple variations, as start in good social dancing. Both boy's and girl's parts shown in close view; each step and variation clearly explained with diagrammatic effects.

2561. SOCIAL DEVELOPMENT √ A II 4c
(1950) McG-H
(Child Development Series)
16 min.
Social behaviour at different age levels, analyzed: infant, pre-school; school children. Selection of playmates of child's own sex and age level. Patterns overlap; definite organization of children's social behavior emerges. Emotional conflicts at "gang age." How guidance from understanding elders can help child.

2562. SOCIAL SERVICE A II 6
INTERVIEWING: SURGICAL VETS
PATIENT (1951)
10 min. **
Social worker interviews patient who has resisted surgery through fear of outcome; clarifying the problem.

2563. SOCIAL WORKER, THE A VI 3
(1951) USArmy-UWF
18 min.
Personalized documentary of young woman who realizes her ambition to become social worker.

2564. SOCKEYE SALMON D III
STORY (1950) UofWash
42 min.; color. *
How Pacific International Fisheries Commission and scientists and engineers from University of British Columbia and University of Washington solved problem of "salmon block" in Fraser River. Situation involved immediate food and occupational resource for large community. Project shown in relation to conservation of the sockeye salmon of the Fraser River. Life cycle of sockeye salmon; spawning grounds in upper reaches of mountainous river system; migration routes; commercial fishery and packing plants, Puget Sound area. Construction of fishways to restore migration routes in portions of river where current is too swift for normal passage of salmon.

2565. SOFT PEDAL (1939) A VI 1
9 min. JamH
Principle of clutch, device for smooth application of power in automobile. Need for control in automobile that will let engine run while car is standing still; necessity for connection flexible enough to transmit power from running engine to shaft which turns wheels. How this flexible connection or clutch operates to shift into all four gears. Modern improvements in clutch construction demonstrated; compared with old methods. Scientific means for testing worth of material and mechanism prove adequacy of device.

2566. SOFTBALL FOR BOYS A V 2
(1948) CORONET
10 min.; also color. *
Pitching, catching, fielding, batting techniques; catcher and pitcher teamwork, analyzed in slow motion and shown, regular photography, in game situations.

2567. SOFTBALL FOR GIRLS (1947) — A V 2 CORONET
10 min.; also color. *
Throwing, catching, batting, fielding demonstrated. Intelligent practice recommended.

2568. SOFTBALL FUNDAMENTALS (1945) — A V 2 YAF
12 min. *
Individual techniques of play involved in softball (junior high school girls). Techniques of batting, throwing, pitching, running bases, and fielding, illustrated.

2569. SOIL AND WATER CONSERVATION (1948) — D I 1 USDA
9 min.; also 35 mm. **
How conservation farming methods may prevent further destruction of U. S. A. soil and water resources.

2570. SOLAR FAMILY √ √ (1936) — C I EBF
11 min. *
Introductory study of planets: their evolution, motions, sizes, satellites. Planetesimal hypothesis. Special phenomena pertaining to certain planets: planetoids, Halley's comet. Movements of solar system in space.

2571. SOLAR SYSTEM, THE (1951) — C 1 CORONET
10 min.; also color. *
Names of planets, relative sizes, distances from sun; scale model of solar system; relationship of planets to their orbits, to each other; gravitational attraction, light and heat.

2572. SOLDERING LUGS AND SPLICING STRANDED CONDUCTORS √ (1944) — A VI 1 OE
(Electrical Work--Wiring--371)
18 min. *
How to solder lug; splice stranded conductors; and make served cable splice.

2573. SOLIDS, LIQUIDS, GASES (1949) — C VIII YAF
10 min. *
Three states of matter defined; how substance can be changed from one state to another, depending on how hot or how cold it is. Everyday applications of these concepts.

2574. SOMATIC CONSEQUENCES OF EMOTIONAL STARVATION IN INFANTS (1948) — A II 4 c SPITZ
(Studies-Problems in Infancy)
30 min.; silent. *
Comparison age for age between behavior of family children, and that of institutionalized children; effects of emotional deprivation upon institutionalized children, resulting in extreme bodily retardation, progressive mental deterioration, and lowered resistance to disease.

2575. SOMATIC ENDOCRINE TYPES (1944) — A II 4 d SPGood
(Neuropsychiatric Disorders Series)
15 min.; silent. *
Patients demonstrating various somatic endocrine syndromes: dyschondroplastic dwarfism, achondroplastic dwarfism, acromegalic giantism, pituitary (Froelich) syndrome, pituitary-pineal syndrome, hermaphroditism, Lawrence-Moon-Biedl syndrome, dysdactylism, cretinism, albinism, mongolism, microcephalus and hydrocephalus.

2576. SOME BIOCHEMICAL REACTIONS OF BACTERIA: THE OXIDASE TEST. (1943) — A II 1c SAB
6 min.; color; silent. **
Presence of enzyme oxidase within certain microorganisms useful for rapid identification, especially in case of Neisseria; other microorganisms which give positive oxidase test, usually easily differentiated from Neisseria on basis of colony morphology. Oxidase test performed preferably by testing individual colonies or by flooding an area of plate culture. Both methods illustrated. Advantages and disadvantages of compounds employed for oxidase test. (Dr. Henry E. Morton and Frank B. Engley, Jr.).

2577. SOME FROGS AND TOADS — C II IO-R
15 min.; color; silent. *
Bull frogs, green frogs, Fowler's toads, leopard frog, cricket frogs, tree toads, spadefoot toad.

2578. SOME OBSERVATIONS CONCERNING THE PHENOMENOLOGY OF ORAL BEHAVIOR IN SMALL INFANTS (1951) — A II 4 c MenniF
25 min.; silent. *
Variations in oral behavior in a number of infants under 24 weeks of age; relationship of mouth movements to neuromuscular maturation; kinds of oral behavior, individual modifications; how feeling states are reflected in oral behavior. Oral activity as embedded in total activity and affective states.

2579. SOUND RECORDING AND REPRODUCTION √ √ (1943) — B VI 2 EBF
11 min. *
Principles of recording and reproducing sound on film; functions of microphone and light valve; how motion picture projector reproduces sound from track; variable area and variable density tracks; functions of vacuum tube amplifier and photoelectric cell.

2580. SOUND WAVES (1952) — C VIII UWF-GB
(Physics of Sound)
15 min. *
How sound waves are produced by vibrations from the body; phenomena of wave motion, wave length and frequency; speed of sound in air, water, solids.

2581. SOUND WAVES AND THEIR SOURCES (1933) √√ — C VIII EBF
11 min.*
Three sources of production of sound waves (string, diaphragm, air column in vibration). How sound waves are transmitted through air. Frequency, amplitude, wave length, fundamentals, harmonics.

2582. SOUNDS OF MUSIC (1947) — C VIII CORONET
10 min.; also color.*
Characteristics of musical sound, explained to children: amplitude, quality (overtones), frequency, as grooved on a phonograph record. Vibration; resonance musical instruments classified: wind instruments, brasses, strings; percussion instruments, rhythm.

2583. SOUTHEASTERN STATES, U. S. A. √√ (1942) — A IX 1 EBF
11 min.*
People, agriculture, industry of southeastern states of U. S. A. Their heritage. Agricultural activity; growing industry and commerce. Cultural and material progress.

2584. SOUTHERN HIGHLANDERS (1949) — A IX 1 FORD
21 min.; color.**
Transformation of "backwoods" people from primitive mode of life to modern living and mechanized soil-tilling methods; with retention of heritage of tradition and folklore. Agriculture, handicrafts, folk music of the Great Smokies, North Carolina and Tennessee.

2585. SOUTHWESTERN STATES, U. S. A. √√ (1942) — A IX 1 EBF
11 min.*
Vast resources of southwestern area of United States. Industrial and commercial progress; geographical features; population trends. Irrigation, stock-raising, agriculture, mining, oil extraction and refining.

2586. SOYBEAN STORY, THE (1948) — D I 1 AllisC
25 min.**
Story of the soybean in America; its acceptance on cornbelt farms; how it fitted into crop rotation. Utilization of soybeans for production of oils, manufacture of plastics, etc.

2587. SOYBEANS -- THE FEATURE STORY (1951) — D I 1 NaSoy
27 min.; color. **
History of the soybean; present processing methods, soybean products, uses, research and markets; how new soybean varieties are developed; proper steps in planting, cultivating, and weed control; place of crop in total farm scheme.

2588. SPANISH INFLUENCE IN THE UNITED STATES (1948) — A IX 2 CORONET
10 min.; also color.*
Influences of Spanish culture from Florida to California. Students discover Spanish influences on architecture, livestock, language, many aspects of American culture.

2589. SPARKY, THE COLT (1950) — A IV 2 CORONET
10 min.; also color.*
Little wobbly colt grows, learns to canter across fields, becomes strong, beautiful horse; in farm setting.

2590. SPEED AND REFLEXES (1950) — A II 7d PROG
11 min.*
Especially in reference to automobiles, human reflex or reaction time demonstrated and explained; effects of fatigue upon reflexes and visibility range. Natural laws (friction, centrifugal force, gravity and kinetic energy) discussed, analyzed and effects illustrated. Types of road construction; hazards inherent in each. Centrifugal force explained as it applies to movement of cars around curves. Mathematical ratio of speed to kinetic energy. Force of gravity; its effect on hills and curves.

2591. SPEEDBALL FOR GIRLS (1947) — A V 2 CORONET
10 min.; also color.*
Players' positions, rules of game explained; kicking, volleying, juggling, passing, receiving demonstrated.

2592. SPELLING IS EASY (1946) — A IV 5 CORONET
10 min.; also color.*
Story of child who encounters difficulty in spelling words he wishes to use in writing article for school paper is used to bring out (for children) basic rules to help them in spelling (English): (1) Hear word pronounced correctly; (2) See word correctly written; (3) Repeat word; (4) Write word; (5) Check.

2593. SPERMATOZOA OF VERTEBRATES (1951) — C II WISTAR
40 min.*
Series of pictures of living spermatozoa of different vertebrates from fish to man taken by means of phase and darkfield cinephotomicrography. Diagrammatic projections of sperm illustrate individual characteristics.
Reel I: Introduction: Views of active sperm of fish, frog, snake, rooster, turkey, rat, hamster, opossum.
Reel II: Active sperm of rabbit, pig, cat, dog, bull and monkey. Diagrammatic summary. Progressive motility with rotation.
Reel III: Living human spermatozoa (phase cinephotomicrography at different magnifications). Normal and abnormal spermatozoa. Characteristic types of motility presented.

2594. SPHERICAL MIRRORS (1951) (Light Series) — C VIII UWF-GB
13 min.*
Characteristics of concave and convex mirrors;

properties of images formed by spherical mirrors; characteristics of real and of virtual images contrasted; practical applications of spherical mirrors.

2595. SPIDERS (1939) C II
11 min.* EBF
Life cycle of nursery-web spider; characteristics of orb-web, funnel-web, trapdoor species shown. Close-up photography used. How spiders snare insects for food.

2596. SPINAL FUSION WITH OSTEO-PERIOSTEAL GRAFT (1941) A II 1 q BURKE
15 min.; color; silent.*
Surgical procedure of spinal fusion for typhoid spine. Unusual tendency to ossification of ligamentum flavum; reduced motion between vertebral segments. Meshwork of bone chips and fragments laid down over denuded articular facets. Osteo-periosteal graft removed from tibia and placed over bed of bone chips. X-rays show postoperative results 4 months after fusion. Spinal mobility demonstrated by patient 4 months, and again 7 years, after operation.

2597. SPINNING LEVERS (1937) A VI 1
10 min. JamH
Principle of lever; its relation to automobile. How lever is used to exert great force; how effectiveness of lever increases with relative length. How motorcar leverage is obtained by gear wheels. Power shown flowing smoothly and continuously through them. Reconstruction of all gears shifted in automobile; necessity for synchronizer; principle on which it works.

2598. SPINNING WHEEL, THE (1940) A IX 1 BARR
(Pioneer Life Series)
10 min.; also color.
Use of spinning wheel in pioneer American home: grandmother shows granddaughter how to card wool, roll it into curls, spin it into smooth yarn, wound on turning bobbin of spindle. Yarn then wound off into balls and doubled on spinning wheel to make knitting yarn.

2599. SPLENECTOMY (No. 145) (1940) A II 1q DG
12 min.; color; silent.**
Operation for Banti's disease from incision to closure of wound. (Dr. Roy D. McClure)

2600. SPLENECTOMY (Revised, 1951) A II 1q
23 min.; color; silent.* THOR
Technique for splenectomy in case of hypersplenism. Importance of preliminary ligation of splenic artery demonstrated. Severance of left leaf of lienorenal ligament as aid to mobilization, stressed.

2601. SPLENECTOMY FOR GAUCHER'S DISEASE (1941) A II 1 q BURKE
15 min.; color; silent.*
Symptoms of disease, indications for splenectomy. Triangle drape used to permit long left rectus incision with transverse T modification, providing adequate exposure for removal of tremendously enlarged spleen. Step-by-step ligation of vessels and removal of 2 kgm. spleen which resembled liver, pulp almost entirely replaced by fat-containing Gaucher's cells.

2602. SPLENORENAL ANASTOMOSIS WITH VEIN GRAFT (1951) A II 1 q SturG
20 min.; color.*
How use of vein graft shortens operation for splenorenal anastomosis, minimizes trauma, makes operation technically easier. Autologous vein graft taken from patient's superficial femoral vein in left thigh. Abdominal cavity explored; pleura opened; diaphragm divided; spleen removed; main splenic vein freed up, but extensive mobilization unnecessary. Segment of renal vein mobilized; vein graft anastomozed, end to end with renal vein. Portacaval shunt now operates satisfactorily. (Dr. Louis M. Rousselot)

2603. SPLICING A WOODEN SPAR (1944) A VI 1 OE
(Airplane Maintenance - Aircraft Maintenance - 248)
21 min.*
How to determine splice area and lay out splice; cut scarf joint on spar; finish scarf face by hand; glue and assemble scarf joint; make glue and assemble reinforcement plates; and trim spar to shape and size.

2604. SPLIT-PHASE MOTOR PRINCIPLES (1944) A VI 1 OE
(Electrical Work - Electrical Machinery - 386)
17 min.*
Construction of stator and rotor explained; comparison of winding in two-phase stator with split-phase stator; effects of winding resistances and inductive reactances; use of capacitor to produce phase displacement.

2605. SPLIT-PHASE MOTOR--REWINDING (1944) A VI 1 OE
(Electrical Work - Motor Maintenance and Repair - 394)
28 min.*
How to test split-phase motor for electrical and mechanical faults; dismantle, strip, rewind stator; form and install skein windings; insulate, lace, dip, and bake stator; assemble, lubricate, and test motor.

2606. SPONGE DIVERS, THE (1950) A IX 1 Repub
(Land of Opportunity Series)
10 min.
Boy learns sponge trade, encounters its perils, becomes owner of his boat; some uses of sponges.

2607. SPOROCYSTS AND CERCARIAE OF SCHISTOSMA MANSONI (4-064) (1948) — A II 1r — CDC
5 1/2 min.; silent.**
Primary sporocysts cannot be dissected free of snail tissues, but young daughter (secondary) sporocysts can be teased from primary or mother sporocyst's sac and observed. Mature secondary sporocysts difficult to dissect out intact; but cercariae in all stages can be freed and studied. Cercarial movements and penetration shown.

2608. SPOROTRICHUM GROWING ON AGAR SURFACE (1947) — A II 1c — SAB
4 min.; silent (time-lapse).*
Sporotrichum spores planted on surface of Sabourand's agar in a petri dish in form of cross. Camera placed over open petri dish; pictures taken at rate of one per minute (Action on screen is 960 times normal). Growth of culture followed for four days. Growth of tough membrane causes wrinkles and typical rugose surface is produced.

2609. SPORT STAMINA (1938) — A V 2 — TFC-Columbia
(News World of Sports Series)
9 min.*
Short flashes of various athletic activities stress need for endurance and fortitude in sports.

2610. SPORT'S GOLDEN AGE √ √(1948) — A V 2 — RKO
17 min.
Review of sporting events showing old-time favorites: Knute Rockne, Jack Dempsey, Bobby Jones, Babe Ruth; and present day champions: Joe Louis, Bob Feller, Johnny Lujack, Ben Hogan.

2611. SPOT NEWS (1937) — B VI 4 — JamH
10 min.
Basic principles of transmission of wire photos, illustrated.

2612. SPOT WELDING √ (1945) — A VI 1 — OE
(Sheet Metal Work - Assembling and Riveting - 295)
20 min.*
How to spot weld parts of access cover, including setting up machine, removing and installing electrodes, setting pressure, current, and time controls, testing setup and cleaning electrode tips.

2613. SPOTTY: STORY OF A FAWN (1950) — A IV 2 — CORONET
10 min.; also color.*
Adventures of wild fawn in natural environment; his habits; how he learns. (For young children.)

2614. SPRING BLOSSOMS (1951) — C III — IntFB
19 min.; color.*
Spring blossoms (Florida to Pacific northwest of the United States); wild flowers (time lapse photography)

2615. SPRING MECHANIZATION AND WEED CONTROL IN SUGAR BEETS (1951) — D I 1 — UtahI
23 min.; color.
General outline of weed problems as affects spring mechanization; sources of weed seeds (fence lines, ditch banks, manure). Control of weeds and thinning of sugar beets by cultural practices (plowing, harrowing, spring-tined weeders). Chemical weed control.

2616. SPRING MECHANIZATION (Sugar Beets) (1951) — D I 1 — FMBSA
28 min.; color.
Four-row, down-the-row weeder-thinner; principles of its control of weeds and elimination of excess beets; how it is to be used in various-sized spring sugar beet stands. Pointers for labor supervision.

2617. SPRING ON THE FARM (1947) — D I 3 — EBF
11 min.; color.*
Adaption of plants and animals to changing seasons. Two children observe spring scene on farm: buds swelling, birds returning, grass becoming green, fruit trees blooming; moths coming out cocoons; young rabbits emerging from nests. Planting of gardens.

2618. SPRINGBOARD TECHNIQUES (1947) — A V 2 — CORONET
10 min.; also color.*
Methods for developing skills which constitute mastery of springboard, demonstrated (slow motion photography).

2619. SPRINTS, THE (1947) — A V 2 — UWF
20 min.*
Fundamentals of 100 yard and 220 yard dash; impact style, natural stretch stride; synchronization of leg and arm action; conditioning exercises; starting techniques; curve starts; slow motion demonstration of muscular utilization and co-ordination.

2620. SPUD AND YOU, THE (1950) — A IX 1 — NaAFC
20 min.; color.
How super-markets in United States are able to sell quality merchandise at reasonable prices; contrasted with store operation methods of past century; importance of self-service, quick-freezing, wide variety of available foods.

2621. SQUEEZE RIVETING--STATIONARY AND PORTABLE RIVETERS √ (1944) — A VI 1 — OE
(Sheet Metal Work--Assembling and Riveting--293)
15 min.*
How to select correct rivet sets for stationary and portable squeezers; setup and use stationary and portable squeezers.

2622. SQUIRREL IN TREES (1951) — A V 2 — IND
(Recreational Game Series)
5 min.*

Second-grade children and teacher demonstrate simple action of game Squirrel in Trees several times; two sequences show variations; review of original game and variations.

2623. SQUIRREL-CAGE ROTOR PRINCIPLES √ (1944) A VI 1 OE
(Electrical Work--Electrical Machinery--385)
10 min. *
Fundamental law of magnetism explained; fundamental law of induced e. m. f. ; electron flow in squirrel-cage rotor setting up magnetic poles which create torque; construction of squirrel-cage rotors.

2624. STACKING AND FIRING (1950) E X IND
(Craftsmanship in Clay Series No. 3)
10 min. ; color. *
How unglazed pottery is stacked and fired in electric kiln. Piece of unfired compared with piece of fired of bisque pottery. Kiln pictured and explained. How shelves are cleaned; fresh kiln wash applied. How shelf supports are cut so that heights of shelves can be varied; placement of fired pieces in kiln efficiently to utilize space. Stacking glazed and unglazed ware. Entire stacking and firing procedure of group of glazed and unglazed pieces pictured, including use of stilts and plate pins to support pieces, placement of ware in kiln, use of pyrometric cones as temperature indicators; careful firing and cooling. Reasons for each step given; good craftsmanship stressed. Results from various firing errors depicted: underfiring, firing piece not thoroughly dry, firing pieces too close together, and overfiring. Beauty of finished ceramic ware attained only through conscious application of good techniques.

2625. STAINLESS STEEL (1943) A VII
29 min. ** AlleLud
Stainless steel developed to avoid rust and corrosion. Types of raw materials used in its manufacture (scrap, iron "pigs," alloys). Melting process in electric furnaces; ingots. "Blooming" process. Rolling of strips, plates, bars, wire. Continuous cold rolling process. Strip annealing. Stripping explained. Cold roling sheets for greater tensil strength. Polishing by belt process. Centerless grinding, polishing of bars; buffing machines. Cold drawing of wire; polishing, grinding processes. How wire is drawn finer and finer through use of hydrogen as non-scaling agent. Various types of stainless steel (strong safe metal).

2626. STALKING BIG GAME IN MONTANA (1946) A V 2 HL
9 min. ; also color. *
Two small boys stalk various types of big game. For children.

2627. STARTING LINE, THE (1948) A II 1 1 CB
20 min. ; also 35 mm. * **
How Illinois State Health Department provides specialized care for premature infants, from birth until they can be cared for by mothers.

2628. STATE LEGISLATURE (1948) A VIII ACAD
22 min. ; also color. *
How law is passed in state legislature. Research and study in preparation of bill; it is given number; first two readings by title. Referred to committee; public hearings; discussion hearings; debate on assembly and senate floors. "Roll call" explained. Signing of bill.

2629. STEAM LOCOMOTIVE, THE (1946) B V 1 NYCent
20 min. **
How steam locomotive operates; boiler, automatic stoker, air brake, water scoop, other features of modern locomotive in detail; servicing and repairing operations in roundhouse.

2630. STEEL BUILDS THE WEST (1949) A IX 1 BETH
28 min. ; color. **
Use of steel in many industries west of the Rocky Mountains; how steel has helped to improv standard of living.

2631. STEEL-PLUS (1948) A VII BETH
45 min. **
Essential operations in manufacture of tin plate; uses.

2632. STEEL RULE, THE (1941) A VI 1 OE
(Machine Shop Work--Precision Measurement--1)
14 min. *
How to read steel rules; use flexible hook and rule-type depth gages and combination squares; how to lay out holes with a combination square.

2633. STEEL TOWN (1944) A IX 1 STATE
16 min.
Life of steel workers in Youngstown, Ohio, third largest U. S. steel center. Average worker's day at mills and at home with neighbors and family. Processing and manufacture of steel.

2634. STEEL TREATING AND TESTING (1943) A VII BETH
(Highlights in Steelmaking, Part II)
45 min. **
Final processing of intermediate products made in blowing, slabbing, and billet mills; rolling on continuous rod mills and strip-sheet mills, cold rolling, wire drawing; billet preparation and important steps in heat treatment.

2635. STEEPLECHASERS √ √ (1946) A V 2 RKO
8 min. *
Estates where horses are bred and trained to jump; details of training; examples of champion jumpers; "iodine horses"; how horses are "moved" to tracks for events; a race.

2636. STEERING, WHEELS, FRONT AND REAR AXLES (1944) (Automobile Operation and Maintenance--484) 19 min. * — A VI 1 OE

How to check for play in steering wheel; check front end assembly for excessive play; correct wheel runout; make toe-in test; test springs, axles, and overall backlash.

2637. STEM RUST (1950) 13 min.; color. ** — D I 4 USDA

How barberry bushes spread stem rust that destroys wheat, oats, barley, rye; nature of disease; how it damages grains. How it may be combatted.

2638. STEP ON IT (1949) 20 min. ** — A VII Goodyear

Methods and modern equipment used in manufacture of neolite heels and soles.

2639. STEPS OF AGE (1950) (Emotions of Every Day Living Series) 25 min. ** — A II 4 c MHFB

Dramatized story of woman of 62 years; her problems and frustrations; grandmother, daughter and grandchild relationships.

2640. STEPS TAKE TIME IN FEEDING HENS (1945) 18, 15 min.; silent.* — D I 2 NYSExt

Part I. Time- and labor-saving methods of storing grain and delivering it to feed bins in hen houses; uses of grain chute and bucket elevator. Part II. How careful arrangement of hen houses and feeding facilities saves work and time.

2641. STEPS TAKE TIME IN GATHERING AND PACKING EGGS (1945) 25 min.; silent. * — D I 2 NYSExt

How to reduce unnecessary steps and motions in operating poultry farm; egg gathering procedures, methods of cleaning, grading, packing, on several farms compared; how to plan and set up equipment for improved efficiency.

2642. STEPS TAKE TIME IN WATERING HENS (1945) 10 min.; silent. * — D I 2 NYSExt

How to save steps in watering hens; methods of watering used by ten different farms compared; importance of having faucets near waterers, using float valves, having drain for waterer to facilitate cleaning.

2643. STEP-SAVING KITCHEN (1948) 14 min.; color. ** — D I 3 USDA

Modern farm kitchen designed for attractiveness, maximum efficiency minimum walking. Arrangement of work areas shown. Efficiency of arrangement demonstrated.

2644. STOP FIRES--SAVE JOBS √√ (1950) 19 min.; also 35 mm. — A II 7c AUDIO

How fires start; industrial fire hazards (vapors, dust, static electricity, bad wiring, misuse and abuse of electrical equipment, lack of precautions, dangerous working habits); what to do when fire starts; how to turn in alarm; importance of calling fire department immediately. What type of fire extinguisher should be used for each type of fire. Importance of fire protection engineering and of management-employee cooperation to prevent fires.

2645. STORIES OF HOLLAND: BACKGROUND FOR READING (1949) 10 min.; also color. * — A IV 2 CORONET

Visual background for reading about Holland; Broek, Vollendam, fishing village on Zuider Zee. For children.

2646. STORY OF A BROWNIE TROOP, THE (1950) 15 min.; color.* (4) — A I 5 e GScout

Brownie Scout troop's experiences over period of several months; how leaders develop activities from girls' interest in nature; how all-day trip to woods is planned and carried out.

2647. STORY OF A FROG (1951) 13 min.* — C II UWF-G-B

Life cycle of frog from egg-laying to emergence of adult from tadpole. Action of hind legs and tongue; skeleton by X-ray photography; process of digestion, assimilation, elimination; circulation; circulation of blood in capillaries, function of pigment-controlling hormone.

2648. STORY OF A GIRL SCOUT TROOP, THE (1950) 15 min.; color.* (5) — A I 5 e GScout

Patrol system and Court of Honor in Girl Scouts; partnership of girls and leader; how troop plans and carries out supper for those who have helped them.

2649. STORY OF A STORM, A (1951) 10 min.; also color.* — C VIII CORONET

Children observe development of storm; nomenclature of cloud formations; use of weather maps and meteorological instruments.

2650. STORY OF ALFRED NOBEL, THE (1939) (Passing Parade Series) 11 min.* — A IX 2 TFC-MGM

A portrayal of Nobel's research which led to the invention of dynamite, and the events which influenced him to establish the Nobel Prize awards for contributions to world peace.

2651. STORY OF AN ORE SAMPLE, THE (1947) 22 min.; color. ** — C VI ACC-MinD

Complete process of testing ore sample to determine best method of concentration, from

prospector's sampling of ore body through final report to company requesting it. How ore is tested by cyanidation, froth flotation, heavy-media separation.

2652. STORY OF APPENDICITIS, THE — A II 1q IO-R
30 min.; color; silent.*
Typical case of appendicitis (from layman's point of view). Important aspects of case, diagnosis and treatment. Correct interpretation of modern surgery indicating that it is undertaken after due consideration and careful study in well established and carefully controlled routine.

2653. STORY OF CHARLES GOODYEAR, THE (1939) — A IX 1 TFC-Columbia
(Fools Who Made History Series)
10 1/2 min.*
Dramatization of the impoverished inventor's efforts to make India rubber commercially practicable; fortunate accident through which he discovered the process of vulcanization.

2654. STORY OF CHRISTOPHER COLUMBUS (1948) — A IX 2 EBF
16 min.; also color.*
Highlights of early life of Columbus to landing at San Salvador in 1492.

2655. STORY OF COAL, THE (1939) — C VI KB
11 min.*
How coal is formed; where found; how mined; importance of coal.

2656. STORY OF COMMUNICATION, THE (1946) — B VI TwC-FF
(The World Today Series)
15 min.*
Progress of communication from simplest forms to present complexity; man's achievements in improving means of communication. Importance of free flow of information to democracy.

2657. STORY OF DR. CARVER, THE (1938) — A IX 1 TFC-MGM
(Pete Smith Specialties Series)
10 min.*
Life story of Dr. George Washington Carver, university trained scientist born in slavery; his agricultural experiments in the southern United States; his many achievements in the laboratory at Tuskegee.

2658. STORY OF DR. JENNER, THE (1939) — A IX 2 TFC-MGM
(Passing Parade Series)
10 min.*
How, as the dread plague of smallpox advanced across Europe, Dr. Jenner, an English physician, tested and proved his theory of immunization through vaccination in defiance of vigorous opposition and so brought the scourge under control.

2659. STORY OF ELECTRICITY, THE (1941) — C VIII KB
11 min.*
Story, dealing with persons and events leading up to present day development of electricity; early discovery of magnetism; how this led to understanding of various other manifestations; Edison's invention of incandescent lamp, etc.

2660. STORY OF ELIAS HOWE, THE (1939) — A IX 1 TFC-Columbia
(Fools Who Made History Series)
11 min.*
Dramatization of motives and methods through which Howe perfected the sewing machine; his difficulties in marketing his invention. Early types of machines; their first use in factories.

2661. STORY OF LEATHER, THE (1947) — A VI 1 Tanner
33 min.; and color.**
Leather, from hides to finished product; preparing and cleaning hides, rough tanning, finishing leather; vegetable and chrome methods of rough tanning; uses and versatility of leather.

2662. STORY OF PETROLEUM√ √(1947) — C VI EBF
(World Energy Resources Series)
11 min.*
Role of petroleum in modern economics and political life; uses of oil as fuel; how seismographs are used in exploring for oil; drilling's refining; how world's petroleum resources are distributed.

2663. STORY OF PHENOTHIAZINE, The √ √ (1946) — A II 1 s DUPONT
19 min.; color.
How use of phenothiazine removes intestinal worms from livestock. Laboratory research tests on ranches and farms. How drug is administered to sheep, horned cattle, hogs, horses and other animals.

2664. STORY OF PLYWOOD (1942) — A VII Bailey
10 min.*
Manufacture and use of Douglas fir plywood; debarking, peeling, clipping, drying, gluing, pressing, squaring, sanding, grading; various common uses of the finished product.

2665. STORY OF STEEL, THE (1939) — A VII KB
11 min.*
Study of steel from iron mines through refining processes; uses in manufacture of such things as watch springs, a sky scraper and a battleship.

2666. STORY OF SUGAR BEETS, THE (1946) — D I 1 FMSBA
20 min.; color.
Importance of sugar beet production in United

States. Production described, from planting, through processing into sugar and bagging for shipment.

2667. STORY OF THE BEES (1949) (Zoology Series) 10 min. — C II UWF

Life cycle of bee; collecting and storing nectar and pollen; birth, life and activities of queen; swarming; repairing hive damaged by excessive heat.

2668. STORY OF THE MICROSCOPE, THE (1940) 11 min.* — A IV 5 KB

History of development of microscope; its many contributions to man's knowledge of "invisible world".

2669. STORY OF THE SPARK PLUG√ √(1942) 22 min.** — C VIII Champ

Manufacture and use of the spark plug; nomenclature, cut-away drawings, function in gasoline engine; assembly, inspection, testing of chemical and physical properties of materials used in making of plug.

2670. STORY OF WENDY HILL, THE (1949) 20 min.; color. * ** — A II 1p USPHS

Young married woman, who discovers she has diabetes, learns facts concerning disease and adjusts to proper care. Such care and dissipation of fear enables her to become happy wife and mother despite diabetes.

2671. STORY THAT COULDN'T BE PRINTED, THE (1939) (Passing Parade Series) 11 min.* — A IX 1 TFC-MGM

How John Peter Zenger, American pre-Revolutionary War printer and publisher, was persecuted, arrested for publishing reports reflecting upon honesty of His Britannic Majesty's Colonial representative, tried but acquitted, so achieving first significant victory in battle for freedom of press in America.

2672. STOWAWAY, THE (TF 1501-3) (1948-50) 17, 24, 12 min.** — A II 3 USArmy-P

Part I: Diseases and Personal Hygiene. Obvious and obscure ways in which disease is spread by food handling personnel; proper sanitary precautions and remedies illustrated. Part II: Galley Sanitation. Methods of sanitation observed in ship's galley illustrate how food service organizations should exercise every precaution to insure all sanitary measures in preventing spread of disease. Part III: Food Storage, Preparation and Serving. Careful inspection of food for use aboard troop transports (principles applicable to all units handling food). Details of proper storage and preservation of foods.

2673. STRADDLE AND SURFACE MILLING TO CLOSE TOLERANCES√ (1941) (Machine Shop Work--Milling Machine --13) 27 min.* — A VI 1 OE

Rough milling of four sides of solid bar stock and finishing piece to given size and shape.

2674. STRADDLE MILLING √ (1941) (Machine Shop Work--Milling Machine--14) 17 min.* — A VI 1 OE

How to straddle mill bosses on connecting rods to proper width when connecting rods are held in fixture.

2675. STRAND BREAKS, A√ √(1950) (Part II, Web of Life Series) 16 min.; color.* — D I 1 EBF

Consequences of state of imbalance in nature; destruction of community as consequence of one element's getting out of hand; applied to both forest and grassland.

2676. STRANDS GROW, THE √ √ (1950) (Part I, Web of Life Series) 14 min.; color.* — D I 1 EBF

How communities of plants and animals have existed on earth only to be replaced by others when they have failed to adjust to changes in environment. Growth and development of climax forest emphasizes meaning and significance of state of balance.

2677. STRANGE INTERVIEW (1947) 55 min.** — A VI 1 GenM

Owner of small production shop which is losing business because of owner's attitude toward employes receives valuable advice from Benjamin Franklin. Correct handling of employes demonstrated in Franklin's printing establishment.

2678. STREAMLINED STEEL (1940) 45 min.** — A VII BETH

Essential operations in production of hot-rolled and cold-rolled sheets and strip on continuous mill; tests made at various stages of production.

2679. STRIKING BACK AGAINST RABIES (4-087.0) (1950) 12 min.** — A II 1s CDC-UWF

How rabies is controlled in United States: danger publicized; quarantine declared; emergency dog inoculation clinics established; practicing veterinarians organized. Dramatized illustration of action taken on appearance of "mad dog."

2680. STRING CHOIR√ √(1937) 11 min.* — E VII EBF

Appearance, function, and timbre of each stringed instrument of symphony ochestra; bowing, pizzicato, and finger techniques used in playing instruments of string choir. Characteristic tonal qualities of violin, viola, cello, and bass viol.

2681. STUDIES IN HUMAN FERTILITY (1940) — C II Ortho
30 min. **
Physiology and anatomy of human reproduction; mechanism of conception; mechanical and chemical principles of contraception; contraceptive methods of past; present day techniques.

2682. STUDY IN BLACK, A√√(1950) — A VII CABOT
31 min.; color.
Manufacturing and handling processes of the carbon black industry; many uses of product explained. Nature of carbon black demonstrated; research work illustrated.

2683. STUDY IN CHOREOGRAPHY FOR CAMERA (1945) — E II MayaD
3 min.; silent.*
Relationship of dancer, space, camera in choreography for film.

2684. SUBCUTANEOUS BLOOD FLOW IN THE BAT'S WING (1949) — A II 1a IND
30 min.*
Reel I--Vascular Pattern: Techniques used for mounting bats and recording circulation in their wings; general distribution of vascular components; detailed views of flow behavior in various vessels; examples of lymphatic action; flow across capillary bed.
Reel 2--Behavior of blood and vascular components: Detailed reactions of minute vessels and blood which modify flow through these regions, demonstrated at high magnification. Form and behavior of platelets within circulation shown before and after mild injury.
Reel 3--Active vasomotion: As it occurs in arterioles, terminal arterioles, and precapillary sphincters and as it affects capillary bed.

2685. SUBTOTAL GASTRECTOMY (1951) — A II 1 q SturG
32 min.; color. *
Technic for chronic duodenal ulcer with partial obstruction (modification of Reichel-Polya-Balfour type of resection, employing long-loop, entecolic, isoperistaltic gastrojejunostomy). (Dr. John L. Madden)

2686. SUBTOTAL GASTRECTOMY (1951) — A II 1 q THOR
48 min.; color; silent. *
Subtotal gastric resection for prepyloric carcinoma of the stomach; closure of duodenal stump by Parker-Kerr technic and reestablishment of intestinal continuity by means of retrocolic end to side gastrojejunostomy of Polya type.

2687. SUBTOTAL THYROIDECTOMY, DEMONSTRATING LARYNGEAL NERVE (1949) — A II 1 q BURKE
15 min.; color; silent.*
Anatomy involved in subtotal thyroidectomy; surgical procedure step-by-step.

2688. SUBTRACTION IS EASY (1948) — C VII I CORONET
10 min.; also color.*
Small boy faces problem of deciding whether he will have enough money to buy baseball after purchasing paints and bat: mathematics in action. Borrowing, place value and other fundamentals of subtraction. Relative values of coins in U.S.A. monetary system.

2689. SUGGESTIONS FOR BEAN PICKERS (1945) — D I 1 NYSExt
10 min.; color; silent.*
How bean pickers can increase their earnings by using more efficient methods; how beans are picked and canned for market; importance of working at steady, even pace.

2690. SUGGESTIONS FOR TOMATO PICKERS (1945) — D I 1 NYSExt
10 min.; color; silent.*
How tomato pickers can increase their earnings by using more efficient methods; various types of picking containers and easiest method of handling each.

2691. SULFONAMIDE THERAPY (1942) — A II 1c ACC-LEDER
45 min.; color; silent.**
Reel I: Story of sulfonamide and derivatives; new area in chemotherapy of bacterial infections. Work of Gelmo; Domagk; Colebrook and Kenny; Whitby; Fosbinder and Walter; Roblin, Williams, Winnek, and English. Cooperative work of chemists, bacteriologists, pharmacologists, pathologists, and clinicians.
Reel II: Clinical applications: technic of Bratton and Marshall. Friedlander's bacilli, colon bacilli, dysentery bacilli, trachoma virus, and lymphogranuloma inguinale virus, susceptible to sulfonamides.
Reel III: Beneficial effects of giving sulfonamides pre- and post-operative. Local application of sulfonamides; use of sulfadiazine in treatment of puerperal infection. The oxidase test. Response to sulfonamide therapy of severe bacillary dysentery and staphylococcus septicemia shown. Efficacy of sulfonamide therapy.

2692. SULPHUR AND ITS COMPOUNDS (1946) — C IV CORONET
10 min.; also color.*
Properties of sulphur and its compounds; importance of sulphur; sulphur mining. Rhombic, monoclinic or prismatic, amorphous or plastic forms of sulphur. Uses of sulphur.

2693. SUMMER ON THE FARM (1947) — C II EBF
11 min.; color.*
Children observe growth of plants and animals during summer.

2694. SUMMER STORM (1946) A VII WestH
20 min.; also 35 mm.**
How public utility companies supplying communities with electric current work to avoid interruption of service.

2695. SUNDAY IN NEW YORK (1946) A IX 1 STATE
9 min.
Sunday in New York; unusual view of usually busy city; peaceful early morning scenes; church services; afternoon relaxations at beaches, ball games, art galleries, parks, and other leisure activities on Sunday.

2696. SUNFISH (1941) C II EBF
11 min.*
Life cycle of sunfish; its activities and relations to its physical and biological environment. Underwater photography used.

2697. SUNRISE SERENADES (1950) C II EBF
22 min.; color.*
Courtship of three types of grouse; actions and sounds recorded; locales in Great Plains.

2698. SUPAI INDIAN (1945) A IX 1 CORONET
10 min.; also color.*
Life of Supai Indians in Cataract Canyon, Arizona: baby strapped to cradle board, children roasting corn by ancient method, rodeo in traditional style, etc.

2699. SUPERVISING WOMEN WORKERS (1944) A VI 1 OE
(Problems of Supervision--158)
11 min.*
Same rules apply in supervising men and women. Women, however, haven't same background of industrial experience and often have more home responsibilities than men, facts which must be taken into account by supervisor.

2700. SUPERVISING WORKERS ON THE JOB (1944) A VI 1 OE
(Problems of Supervision--157)
10 min.*
Various kinds of poor supervision practices shown, among them, nagging, snooping, etc. Dramatized incidents make poor results of these methods apparent.

2701. SUPERVISOR AS A LEADER, THE (1944) A VI 1 OE
(Problems of Supervision--168,169)
27 min.*
Part I: Several workmen asked what they consider to be qualifications of good supervisor: Always keeps promises; never takes credit for someone else's work; doesn't "pass buck," or play favorites.
Part II: Four supervisors discuss qualities of leadership. Dramatized incidents make clear what they mean: one man lets his job go to his head; another goes to pieces under pressure.

2702. SUPRA-AORTIC ESOPHAGO-GASTROSTOMY FOR CARCINOMA OF MID-PORTION OF ESOPHAGUS (1948) A II lq THOR
38 min.; color; silent.**
Resection for carcinoma of midportion of esophagus. Esophagus mobilized from thoracic inlet above to entrance into stomach below. Detached at gastric end and brought over arch of aorta. Following removal of tumor and partial esophagectomy, a transthoracic supra-aortic end to side esophagogastrostomy is performed.

2703. SUPRADIAPHRAGMATIC GASTRIC VAGOTOMY (No. 349) (1948) A II lq DG
22 min.; color; silent.**
Surgical record film of specialist performing his own developed procedure in operation for peptic ulcer: abdominal approach, sectioning of anterior and posterior vagi and all branches of stomach. (Dr. Lester R. Dragstedt)

2704. SUPREME COURT (1948) A VIII CORONET
10 min.; also color.*
A case followed from inception, through lower courts, to final hearing before U.S. Supreme Court; relationship of court to "plain citizen." Supreme Court as guardian of constitutional rights; its function, powers, and jurisdiction.

2705. SURGERY IN FACIAL CANCER (1946) A II lq TdeC
13 min.; color; silent.*
Radical excision of postradiational recurrent cancer of tip of nose; immediate reconstruction of the loss of the nose using pedicled skin flap from cheek and forehead. Complete follow up postoperative management to eight years. Recurrent advanced cancer of orbit (cheek and nose, involving paranasal sinuses) treated by electrocoagulation followed by plastic reconstruction by temporal arterial flap. Follow up, twelve years.

2706. SURGERY OF THE COMMON BILE DUCT (No. 144) (1941) A II lq DG
46 min.; color; silent.**
Diagnosis and pathology of disease of common bile duct requiring surgery; operations commonly employed. Animations demonstrate changes in bile flow in presence of strictures, stones, tumors. (Dr. Charles B. Puestow)

2707. SURGICAL ANATOMY OF STOMACH AND PANCREAS (1941) A II la BURKE
15 min.; color; silent.
Anatomy of stomach, greater, omentum, transverse colon, transverse mesocolon, lesser peritoneal cavity and pancreas, and splenic artery. Blood supply of stomach from three branches of celiac axis. Method of performing gastroenterostomy. Dissection on unembalmed cadavers reproduces natural color and conditions of tissues involved. (Dr. Conrad J. Baumgartner)

2708. SURGICAL ANATOMY OF SUBMAXILLARY REGION AND SUPRACLAVICULAR AREA (1941) — A II 1a BURKE
15 min.; color; silent.
Two separate dissections expose deep cervical fascia, facial muscles, nerves, arteries and veins, submaxillary gland, lingual nerve, etc. Location and relation of jugular vein, branches of cervical plexus, brachial plesux, subclavian artery and vein, etc. Dissection on unembalmed cadavers reproduces natural color and condition of tissues involved. (Dr. Conred J. Baumgartner)

2709. SURGICAL APPROACHES TO SCAPULOHUMERAL JOINT (1949) — A II lq VETS
(Surgical Approaches Series)
30 min.; color.**
Bones, ligaments, muscles, tendons, neurovascular structures with which surgeon must deal in approaches to shoulder joint. Actual operations shown, utilizing anterior, posterior and muscle-splitting incisions. Recapitulation in animation.

2710. SURGICAL APPROACHES TO THE ELBOW JOINT (1950) — A II lq VETS
(Surgical Approaches Series)
30 min.; color.**
Anatomy of anterior and posterior aspects of elbow joint. Operations utilizing approaches to the anterolateral, lateral, medial and posterior aspects shown; recapitulated in animation.

2711. SURGICAL APPROACHES TO THE HIP JOINT (1951) — A II lq VETS
(Surgical Approaches Series)
30 min.; color.**
Anatomy of anterior and posterior aspects of hip joint. Operations employing approaches to anterolateral, straight lateral, posterolateral aspects of joint shown; recapitulated in animation.

2712. SURGICAL APPROACHES TO THE KNEE JOINT (1951) — A II lq VETS
(Surgical Approaches Series)
30 min.; color.**
Anterior and posterior aspects of knee joint; approaches to anterior and posterior aspects; to medial and lateral semilunar cartilages shown; recapitulated in animation.

2713. SURGICAL GINGIVECTOMY √√ (1948) — A II 1 e7 ScieFC
55 min,; color; silent.*
Surgical treatment of periodontal disease; examination, prophylaxis, pre-operative care, surgery, post-operative treatment, home care, end results. Construction of special appliances for correction of bruxism, tooth mobility, poor esthetics.

2714. SURGICAL TREATMENT FOR CARCINOMA OF THE LOWER END OF THE ESOPHAGUS (1947) — A II lq THOR
38 min.; color; silent.**
Carcinoma of cardiac end of stomach extending into lower end of esophagus. Through thoraco-abdominal incision partial esophagogastrectomy performed with an end to side esophagogastrostomy.

2715. SURGICAL TREATMENT FOR CONGENITAL PULMONARY VALVULAR STENOSIS (1951) — A II lq SturG
20 min.; color.*
Anatomy and physiology for congenital pulmonary valvular stenosis. Seven year old child exhibits typical signs and symptoms of condition; heart sounds recorded on soundtrack; roentgenogram, electrocardiogram and cardiac catheterization tracings shown. Main steps in procedure of pulmonary valvulotomy demonstrated; emphasis on special instruments employed. Patient's improvement shown; comparative postoperative findings discussed. (Dr. George H. Humphreys II)

2716. SURGICAL TREATMENT FOR CONGENITAL PYLORIC STENOSIS, THE (1950) — A II lq THOR
15 min.; color; silent.*
Surgical treatment for congenital pyloric stenosis in three weeks old male. Wedge-shaped segment of thickened pyloric musculature removed to but not through mucosa. New test for patency of pylorus demonstrated.

2717. SURGICAL TREATMENT FOR PATENT DUCTUS ARTERIOSUS (1950) — A II lq SturG
10 min; color.*
Three and half year old girl with patent ductus arteriosus examined; effects of condition demonstrated. Typical "coffee mill" murmur heard on sound track; roentgenogram shows characteristic changes in outline of heart. Surgical approach through antero-lateral chest well at level of second interspace. Anatomy of region around ductus demonstrated. Ductus ligated at each end, doubly clamped and divided; second ligature under each clamp to secure stumps. Patient seen several months postoperatively; no murmur, heart nearly normal.

2718. SURGICAL TREATMENT FOR SPLENIC FLEXURE CARCINOMA WITH SOLITARY LIVER METASTASIS (1947) — A II lq THOR
45 min.; color; silent.**
Patient presented large bowel, complete, non-strangulated intestinal obstruction resulting from carcinoma of splenic flexure. A "blind cecostomy" performed and two weeks later partial colectomy with aseptic end to end anastomosis. Partial left lobe hepatectomy accomplished for a large solitary metastatic nodule. Closure of cecostomy demonstrated.

2719. SURGICAL TREATMENT OF CAROTID BODY SENSITIVITY IN MAN (PMF 5171) (1951) — A II lq — USArmy-P
20 min.; color. **
Surgical correction of carotid body sensitivity; comparison of preoperative and postoperative conditions; details of surgical procedure.

2720. SURGICAL TREATMENT OF HIRSCHSPRUNG'S DISEASE (1949) — A II lq — SturG
15 min.; color. *
Syndrome explained (diagram); roentgenogram followed by surgery. Abdominal incision to open peritoneum; lower, achalasic portion of sigmoid mobilized. Clamp inserted into rectum from below, closed around knuckle of intestine, rectum everted. Abdomen closed, everted rectum and achalasic portion of sigmoid excised, mucosa of remaining sigmoid sutured to that of anus. Sphincter mechanism remains intact; bowel movements return to normal postoperatively.

2721. SURGICAL TREATMENT OF HYPERTENSION (No. 142) (1946) — A II lq — DG
21 min.; color; silent. **
Lumbodorsal splanchicectomy and removal of sympathetic trunks bilaterally from 8th thoracic to 3rd lumbar ganglia. Two stage procedure. (Dr. R.H. Smithwick).

2722. SUSAN B. ANTHONY (1951) — A IX 1 — EBF
19 min. *
Biography of Susan B. Anthony, leader of woman suffrage movement; activities in organizing women's temperance movement, obtaining property rights for women, campaigning for voting privileges.

2723. SUWANEE PINE (1944) — D I 5 — UofGA
15 min. color. **
How gum is gathered from southern pine, classified according to color and transparency; processed into rosin and turpentine. How resin is collected and distilled.

2724. SWAGING CABLE TERMINALS √ (1944) (Aircraft Work--Control Cables --298) — A VI 1 — OE
12 min. *
How to measure and mark cable accurately; set up swaging machine; check work for uniformity and defects; remove and clean machine parts.

2725. SWEDES IN AMERICA (1943) — A IX 1 — STATE
17 min.
Ingrid Bergman tells the story of Swedes in America; Americans of Swedish descent; their contribution to American life and culture. Consumer cooperative movement Farms and villages of north central United States.

2726. SWIMMING TECHNIQUES FOR BOYS (Matt Mann) (1942) — A V 2 — CORONET
25 min.; also color. *
Crawl, breast, back, butterfly strokes taught; land and water drill. Dives.

2727. SWIMMING TECHNIQUES FOR GIRLS (Matt Mann) (1945) — A V 2 — CORONET
10 min.; also color. *
Beginning students shown elements of four basic strokes: crawl, back, breast, flying fish. Proper arm motion, kicking action, breathing, body streamlining demonstrated. Relaxation emphasized as prerequisite to good swimming technique.

2728. SWINGING INTO STEP (TF 8-2083) (1945) — A II 6 — USArmy-UWF
33 min. **
Rehabilitation and morale film for amputees, showing graphically, how loss of limb does not mean patient cannot return to normal living.

2729. SYMPATHETIC NERVE BLOCK (PMF 5090) (1948) — A II lq — USArmy-P
15 min.; color. **
Techniques used to accomplish sympathetic nerve blocks of four types of cases. A lumbar sympathetic block performed for diagnostic purposes on patient complaining of causalgia in his left leg.

2730. SYMPHONY ORCHESTRA √ √ (1937) — E VII — EBF
11 min. *
Contributions of composer, conductor, and players in achieving successful symphonic performance: functions and characteristic tonal qualities of each choir. Seating arrangement of modern symphony orchestra explained.

2731. SYNTHETIC FIBERS--NYLON AND RAYON √ √ (1949) — A VII — EBF
14 min. *
Processes used in making synthetic fibers; some of the characteristics of textiles made from them.

2732. SYNTHETIC RUBBER (1948) — A VII — Goodyear
20 min. **
Source of natural rubber; discovery and development of synthetic rubber; work of Goodyear, Faraday, Williams, Tilden. Processes of production, natural and synthetic rubber compared. Advantages and disadvantages of both products. How they may be used in combination.

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2733. TACKLING IN FOOTBALL (1946) A V 2 EBF
11 min.*
Basic techniques analyzed: shoulder tackle, cross-body tackle; variations. Importance of correct starting position, speed, drive, sure grip, body control. Safety measures. Slow-and stop-motion photography used.

2734. TALE IN A TEACUP (1948) A VII TeaBu
22 min.**
History of tea industry from beginnings in Ancient China to modern times; struggle of certain Britons to set up tea plantations in India, clearing jungle lands, domesticating tea plants; tea tasting and blending; popularity of tea in United States; how to make good cup of tea.

2735. TALE OF THE TWIN CITIES (1949) A II 3 UMINN
20 min.; color.
Twin City citizens unite to remedy unsanitary condition of Mississippi river in their area. Civic cooperation and planning lead to construction plant for chemical treatment of sewage. Two young boys on guided tour see machines for removal of sludge solids, chemists making tests, settling tanks, incinerators, etc.

2736. TALL TALES (1941) E VII BF
11 min.*
American ballads: Strawberry Roan, Grey Goose, John Henry, etc., sung by American balladeers: Burl Ives, Josh White, Will Geer, Winston O'Keefe.

2737. TANGLEWOOD STORY (1950) E VII STATE
21 min.
Berkshire Musical Festival directed by Serge Koussevitsky, where students of serious music meet and study under accomplished musicians of international renown. Orchestral and choral music.

2738. TARPON ON LIGHT TACKLE (1946) A V 2 HL
9 min.; also color.*
Fishing for tarpon with light tackle among islands off southwest coast of Florida.

2739. TEACHER, THE A I 1
15 min.* EBF
Story of teacher who is offered another interesting job, but decides to remain in her chosen profession; importance of teacher in training future citizens; training teachers receive; some of the satisfactions deriving from their work.

2740. TEACHERS FOR TOMORROW (1949) A I 1 UWis
22 min.*
Teacher preparation in School of Education, University of Wisconsin. Necessity for good teaching, processes of general education, selection, professional course work, observation, participation, student teaching, and placement. Critical need for elementary teachers. First year graduates in typical teaching situations.

2741. TEACHING (1948) A VI 5
11 min.* MAHNKE
Responsibility and challenge of teaching, largest of all professions; demands intelligence, knowledge and thorough training. Teacher must like children, enjoy working with people, be willing to study constantly. Advantages profession offers: vacations, more than average economic and job security. Trend to specialization: kindergarten, home economics, physical education, guidance, science, vocational, with handicapped, adult education, etc. Activities in which teacher partakes in modern school.

2742. TEACHING CRUTCH WALKING (1944) (Nursing--422) A II 6 OE
13 min.*
How physical therapist teaches bed patient reconditioning exercises; how to teach patient to walk in walker; how to teach various methods of crutch walking--two-point, four-point, and swinging; how to teach patient to sit, rise, and climb stairs; safety factors involved in crutch walking.

2743. TEACHING MATERIALS CENTER (1950) A I 1 VaDeptE
9 min.; also color.*
Organization, variety of materials, classroom significance of county teaching materials center.

2744. TEAMWORK (1947) A VI 4
22 min.* InstF
Six means by which cooperation is achieved among student groups, emphasizing democratic participation as an underlying principle. Examples of cooperation through force, bargaining, trickery, compromise, leadership, and democratic procedure; discussion of each invited.

2745. TECHNIC OF AMALGAM RESTORATIONS √ (1944) A II 1 e 4 ScieFC
30 min.; color; silent.*
Cavity preparation for amalgam restoration; indications and contra-indications of various cavity forms; matrix adaptations; trituration and condensation of amalgam; carving, polishing and finishing of restoration.

2746. TECHNIC OF GRAM'S STAIN, THE (1950) A II 1c SAB
12 min.; color.*
Technic of Gram's stain demonstrated by close-up views. Significance of various steps

explained. Theories of Gram stain and importance of reaction of microorganisms to Gram's stain, discussed in a study guide supplied with the film. (Drs. W. W. Smith, Harry E. Morton, and Warren Sturgis)

2747. TECHNIQUE FOR COUNTING MOTILE SPERMATOZOA, A (Phase Microscopy) (1947) 6 min.* — C II WISTAR

Improved technic for making analysis to determine male (human) fertility: (1) Views of normal and abnormal spermatozoa; (2) Types of measurement of spermatozoa: "progressive," sluggish, oscillating, circling; (3) Technic of making counts of total number of active spermatozoa and of measuring their rates of progression; (4) Method of obtaining index of fertility from figures for volume, count per cm3, and percentage of motility used to calculate actual number of moving spermatozoa in ejaculate.

2748. TECHNIQUE OF BCG VACCINATION (M14) (1951) 40 min.; color.** — A II 1 j CDC

Part I: How to set up BCG clinic and administer TBN test.
Part II: How to mix BCG vaccine, prepare syringe; how to read TBN tests; how to administer BCG vaccine intradermally, and by multiple puncture method.

2749. TECHNIQUE OF OPEN AMPUTATION (PMF 5033) (1946) 9 min.; color.** — A II 1 q USArmy-P

Procedure on below knee open amputation case; revision and final plastic repair performed six weeks later. Thorough explanation of each specific step throughout two operations.

2750. TECHNIQUE OF TANTALUM CRANIOPLASTY (PMF 5097) (1948) 40 min.; color.** — A II 1 q USArmy-P

Typical problems in cosmetic correction of skull defects by means of tantalum cranioplasty. Technique of formation and insertion of tantalum plates.

2751. TECHNIQUE OF TENNIS, THE (1939) (News World of Sports Series) 9 min.* — A V 2 TFC-Columbia

A demonstration by Lloyd Budge of tennis fundamentals for beginner: forehand, backhand, service strokes, etc. Footwork, timing. Exhibition of net play.

2752. TECHNIQUES OF GROUP CHEST X-RAY SERVICES (1946) 18 min.** — A II 1 l USPHS

Procedure outline for administration and operation of mass radiography case-finding program. Basic and latest developments in equipment and techniques: use of truck; fluoroscopic photography on miniature film; possibility of x-ray without undressing chest. Importance of organization, planning and teamwork by responsible administrative group and competent operating personnel.

2753. TEEN-AGE FARM HAND, A (1944) 11 min.; color. — D I 3 FRITH

Typical farm boy, concerned about everything that happens on farm. Farm chores: tending chickens, collecting eggs, cleaning chicken yards, feeding and raising pigs, milking cows, feeding and harnessing horses, fertilizing soil, driving tractor, newborn baby calf. Haying, rhythm of men working in unison with big machine.

2754. TEETH, THE √√ (1945) (The Human Body, Series I) 11 min.* — A II 2 EBF

Development and structure of human teeth; importance of proper care. Cause of decay; how affected by proper diet, regular good brushing, and frequent consultation with dentist. Organized community programs for dental care.

2755. TELEPHONE AND TELEGRAPH (1946) 11 min.* — A VI 5 MAHNKE

Teleprinters and multiplex machines employ many girls. Hundreds of maintenance men needed to keep transmission mechanisms in order. Installation of new equipment and cross country lines, directed by highly trained men. Hundreds of offices which require services of managers, operators and other well trained people. Complex telephone systems offer specialized jobs; some require higher education.

2756. TELEPHONE AND THE FARMER, THE (1952) 31 min.; color.** — D I 3 USDA

How the people of one community secured rural telephone service by their own efforts.

2757. TENNIS RHYTHM (1942) (News World of Sports Series) 9 min.* — A V 2 TFC-Columbia

Sequences of Bobby Riggs winning national tennis championship; he explains his technique: grip, service, forehand and backhand drive, etc. Slow motion used.

2758. TENSION TESTING (1944) (Engineering--Materials Testing--348) 21 min.* — D II OE

How a hydraulic tension testing machine operates; how to prepare the machine and a specimen for a test; how to conduct test to determine specimen's elastic limit, yield point, and ultimate strength.

2759. TERMINAL SAPHENOUS LIGATION (1942) 15 min.; color; silent.* — A II 1 q BURKE

Examination of patient; positive Trendelenburg test showing terminal saphenous vein valve incompetency; Ochsner test, Perthes test determine operability. Bilateral ligation performed under local anesthetic. Postoperative results.

2760. TERMITE CONTROL (1951) D I 4
20 min. * IOSC
What termites are; damage they do; how to repair damage in old structure and prevent infestation in new building.

2761. TERRITORIAL EXPANSION OF THE UNITED STATES (1783-1835) (1938) A IX 1 IntGP
22 min.
Territorial growth of United States from colonial times; explanations of boundary disputes; illustrated by animated maps.

2762. TERRITORIAL POSSESSIONS OF THE UNITED STATES (1939) A IX 1 IntGP
22 min. *
Insular possessions of the United States: Alaska and Canal Zone. Locations, sizes; historical events and personalities.

2763. TESTING AND INDIVIDUAL THERAPY FOR APHASIC PATIENT (1950) A II 6 VETS
(Series on Aphasia)
25 min.; color. **
Testing and rehabilitation procedures for aphasics of different types. Psychological, personality testing. Therapy in motor, sensory, formulation aphasia.

2764. TESTING ANIMAL INTELLIGENCE (1941) A II 4c IntFB
18 min.; silent. *
Test on white rat with animated learning curve; tests on monkey including sample of "neurotic" behavior.

2765. TESTING INTELLIGENCE WITH STANFORD-BINET (1950) A II 4c IND
18 min. *
Overview of types of items and method of administration employed in Stanford-Binet intelligence test. How results of tests are translated into mental ages and intelligence quotients. Unrehearsed reactions of four children to selected items from test.

2766. TESTING THE I. Q. (1941) A II 4c
18 min.; silent. * IntFB
Demonstration of administration of revised Stanford-Binet intelligence test; calculation of I. Q.

2767. THAT MOTHERS MIGHT LIVE (1938) A IX 2 TFC-MGM
(MGM Miniature Series)
10 min. *
Dramatization of Dr. Semmelweiss's fight against child-bed fever. His discovery that the fever is spread by germs; refusal of his associates to recognize that fact. His death and posthumous justification.

2768. THEN IT HAPPENED (1948) D I 5
10 min.; color. ** USDA
Great Maine forest fire of 1947 (heavy loss of human life; property loss over 30,000,000 dollars). Need for forest fire prevention and control measures illustrated.

2769. THEORY OF FLIGHT √√ (1941) C VIII
11 min. * EBF
Basic principles of airplane flight. Application of physical laws to forces acting on airfoils; wind tunnel demonstrations: relation of air velocity to lift and drag on flat and cambered airfoils. Control of airplane movements about vertical, longitudinal, lateral axes by means of rudder, elevator, ailerons. Pitching, rolling, yawing illustrated.

2770. THEORY OF OPERATION OF THE FOUR POLE MAGNETO √ (1943) C VIII BenAC
(Aircraft Magnetos)
30 min.
Theory of operation and assembly of four-pole aircraft magneto.

2771. THERAPEUTIC EXERCISE --INTRODUCTION (PMF 5034) (1947) A II 6 USArmy-UWF
17 min. **
Carefully planned therapeutic physical movement, scientifically applied for specific purpose.

2772. THERAPEUTIC EXERCISE --ORTHOPEDICS (PMF 5051) (1947) A II 6 USArmy-UWF
28 min. **
Therapeutic exercise in treatment of orthopedic cases.

2773. THERAPEUTIC EXERCISE --THORACIC SURGERY (PMF 5056) (1947) A II 6 USArmy-UWF
27 min. **
Physical examinations; determining specific remedial activity; characteristic deformities; preoperative exercises; general surgical aspects; postoperative treatment routine; coughing; posture; progressive stages of exercises; heat and ultraviolet; measurement of range of motion; overcoming definite weakness or loss of function; heavy resistance phase.

2774 - 2775. THERAPEUTIC USES OF HEAT AND COLD (1944) A II 1 1 OE
(Nursing 408, 409)
21, 22 min. *
Part I: Administering Hot Applications: Body reaction to heat and use of these reactions in alleviation of pain; how to apply hot water

bottles, electric pads, chemical pads, and paraffin bath; to use hot soak, compresses, infra-red lamp and shortwave diathermy. Part II: Administering Cold Applications. Body's responses to cold stimuli; how these responses are used to alleviate pain; how to administer contrast baths and ice bags; apply ice packs as anesthesia and use refrigerating blankets and cold chamber.

2776. THERE'S A JOB TO BE DONE (1947) D I 1 AUS-WeS
30 min.; color.
Heavy equipment as used for making terraces, ponds, ditches, etc., for soil conservation. Extent of erosion damage in the United States; how proper tilling and planting control erosion. Strip cropping and staking for graded channel terracing. Advantages of terracing. How waterways for drainage may be constructed without soil loss. Level terracing illustrated. Diversion terraces and outlet ditches. Shaping for gully control. Furrowing to provide drainage for marshy area. Removing brush and flattening bank. Construction of pond basin with dragline shovel. How shovel may be used for digging drainage ditches.

2777. THERMODYNAMICS √ √ (1938) C VIII EBF
11 min. *
Concepts that molecular action is affected by heat; that heat is energy; that heat energy can do work, illustrated in heat engines. Energy transformation in steam engine, steam turbine, gasoline engine, Diesel engine. First and second laws of thermodynamics.

2778. THERMOMETER, THE √ (1949) C VIII InstF
(Experiences in Science Series)
10 min. *
How thermometers, liquid and metal, are constructed; simple experiments demonstrate principle of expansion and contraction on which all thermometers work.

2779. THESE ARE THE FACTS (1950) A IX 1 NaBFUn
18 min.; also 35 mm. **
How fire insurance companies render public services; inspections of fire departments, engineering and research to help protect community from fire and fire losses.

2780. THEY DO COME BACK (1945) A II 1 d
17 min. NatTbA
Dramatic narrative of battle against tuberculosis waged by young man and his fiancee. Community's organized program for tuberculosis control; methods in tuberculosis case-finding, diagnosis, treatment and cure.

2781. THEY LIVE AGAIN (1938) A IX 1
(MGM Miniature Series) TFC-MGM
11 min. *
Biography of Dr. Fred Banting; his discovery of insulin as cure for diabetes.

2782. THINGS EXPAND WHEN HEATED (1949) C VIII YAF
11 min. *
Movements of molecules before and after heat is applied; their accelerated movement, requiring more space, causes expansion. Concrete examples of expansion and contraction.

2783. THIRTY-FOUR INCH (1951) D II
34 min.; color. ** BecI
Documentary record of laying "Super Inch" (natural gas pipeline) across Mojave Desert to San Francisco Bay.

2784. THIRTY-SIX WEEKS BEHAVIOR DAY (1934) A II 4 c EBF
10 min. *
Traces day's activity for baby previously pictured at twelve weeks; growth during interval; first successful attempts at creeping; psychological implications of attention by mother and father.

2785. THIS CHARMING COUPLE (1950) A VI 4 McG-H
(Marriage Series)
19 min.
Two young people refuse to evaluate each other's good qualities and shortcomings in realistic, adult fashion; because they are in love with "love" and not with each other, their marriage is doomed to fail.

2786. THIS GRACIOUS HERITAGE √ √ (1948) E X GORHAM
20 min. **
Silver, illustrious cultural artifact; history of art of silversmithing. How a silversmith is trained. Careful handwork of Paul Revere and Jabez Gorham; handshaping with help of power lathe in large manufacturing plant today. Designing on paper, then in plaster; transfer to bronze master; making steel die. Manufacture of a silver spoon shown in detail.

2787. THIS IS OUR LAND (1945) D I 1
26 min. ** ETHYL
Damage water and wind erosion and overcropping have done to farm land of the United States; how damage may be stopped and soil saved to produce better crops, bigger yields and more profits.

2788. THIS IS RESISTANCE WELDING (1946) D II GE
30 min.; color. **
Three types of resistance welding described: spot, projection, seam. Advantages and uses of each. Use of gun welder shown; advantages of portability.

2789. THIS IS ROBERT (1943) A II 4c
(Studies in Normal Personality Development) Vassar
80 min. *

Development of aggressive, "difficult" but appealing child from arrival in nursery school at age of two years through first year in public school at age of seven. His aggression analyzed and countered by mother's influence and affectionate consistent treatment by teacher.

2790. THIS IS RUBBER (1951) A VII
16 min.** UWF
Uses of natural rubber, from children's toys to heavy industrial equipment; extraction of liquid latex, processing, compounding and shaping, vulcanizing.

2791. THIS IS STEEL (1945) A VII
28 min.** BETH
Production of pig iron in blast furnace; refining of iron into steel; certain operations in shaping of steel.

2792. THIS IS TB √√(1946) A II 1d
10 min.; also 35 mm. NatTbA
Factual documentary on tuberculosis. Dramatized narrative and actual hospital shots, combined to outline cause, spread, treatment, cure and prevention of tuberculosis.

2793. THIS IS THE S. I. U. (1949) A I 5 a
18 min.* SeaIntU
Function and operation of headquarters of Seafarers Union, Atlantic and Gulf District, as seen by rank-and-file member home from voyage; activities and advantages of Union, its democratic operations.

2794. THIS IS TOMORROW (1943) A IX 1
(Passing Parade Series) TFC-MGM
10 min.*
Community development; city planning; objectives in construction of model home and work areas.

2795. THIS IS W.S.C. (1950) A I 1
22 min.; color.** StaCWa
Important features of State College of Washington campus, field work of members of faculty; importance of College to people of State of Washington.

2796. THIS IS WEST POINT A IX 1
(Misc. 7726) (1951) USArmy
25 min.**
Origin and purpose of United States military academy. Life of cadet from entry into West Point to graduation.

2797. THIS LITTLE PIG WENT D I 3
TO MARKET (1951) AmStockYA
27 min.; color. **
Marketing of swine through public livestock markets where national supply and demand meet; sale on merit under competitive conditions, by competent salesmen. Dissemination of reliable comparable market information.

2798. THIS VITAL EARTH (1947) D I 1
(Living Earth Series) EBF
11 min.; color.*
Beauty and logic of balance in nature and organization of living community; dependence of plants and animals on each other for survival and control. Man upsets balance by depleting soil; non-productivity of soil robbed of certain minerals.

2799. THOMAS JEFFERSON (1949) A IX 1
17 min.* EBF
Biography of Jefferson, author of Declaration of Independence, Governor of Virginia, Secretary of State, Minister to France, Vice President and President of the United States; founder of the University of Virginia.

2800. THORACIC SURGERY A II 1 q
(PMF 5016, -7, -8) (1946) USArmy-P
41, 30 and 45 min.; color.**
Part I: Hemothorax with Consideration of Specific Remedial Breathing Exercises. Pathologic, diagnostic and therapeutic aspects of hemothorax and other disorders of pleura and pleural cavity.
Part II: Foreign Bodies in the Lung and Mediastinum. Problems associated with diagnosis, surgical planning, surgery and postoperative care of patients.
Part III: Foreign Bodies in the Lung and Mediastinum. Diagnostic planning, surgical and postoperative techniques.

2801. THREADS OF A A III 2
NATION (1940) TFC-Columbia
(Cinescope Series)
9 min.*
History of cotton industry from ancient times to present; modern methods of laboratory testing, drying, and designing.

2802. THREE COUNTIES AGAINST A II 1d
SYPHILIS (1938) USPHS
17 min.; also 35 mm.**
How three counties in the southeastern portion of the state of Georgia joined with the United States Public Health Service in setting up a demonstration project for the control of syphilis.

2803. THREE DEEP (1951) A V 2
(Recreational Games Series) IND
6 min.*
Fourth-grade children play game of Three Deep, under teacher's supervision. Forming a double circle, running and chasing. Two variations of original games.

2804. THREE FOX FABLES√√(1948) A IV 2
11 min.* EBF
Real animals play parts in three of Aesop's fables.

2805. THREE LITTLE KITTENS√√ C II
(1938) EBF
11 min.*

Characteristics and habits of cats and kittens. Development and experiences of three little kittens, as they play, climb, eat and learn to care for themselves.

2806. THREE OPERATIONS FOR OPERATION ANALYSIS (1942) — A VI 1 PURDUE
Projection time as desired (participational; 94 ft.); silent. *
Operations to be used in preparation of right and left-hand operation charts. Original method of assembling clutch collar, packing refrigerator remote control rods, assembling small relay block.

2807. THREE-PHASE MOTOR √ (1944) — A VI 1 OE
17 min. each. *
Part I: Preparing to Rewind (Electrical Work--Motor Maintenance and Repair--395) How to interpret and record name-plate data of three-phase motor; identify line and finish line leads; remove coils, determine coil span; use coil winding machine; end-tape machine wound coils.
Part II: Rewinding (Electrical Work--Motor Maintenance and Repair--396) How to insert mush coils; insert separators or "willies"; fold, trim, and wedge slot insulation around windings; insert phase insulation; and make delta connection.

2808. THREE-WIRE SERVICE ENTRANCE (1944) — A VI 1 OE
(Electrical Work--Wiring--374)
24 min. *
How to mount and connect outdoor meter connection box and service control box; ground a three-wire service entrance installation; and install concentric service entrance cable.

2809. THROUGH THE GRAND CANYON BY BOAT — A IX 1 GATE
18 min.; also color. *
Two-week expedition down Colorado River (Lee's Ferry to Lake Mead) under guidance of Norman Neville. Technique of running rapids demonstrated.

2810. THROUGH THESE DOORS (1951) — A I 2 IntFB
40 min.; color. *
Personally conducted tour through workrooms, laboratories, reference collections of Chicago Natural History Museum; departments of anthropology, botany, geology, zoology. Value of reference library. School extension services of the museum.

2811. THROWING (1950) — E X IND
(Craftsmanship in Clay Series)
10 min.; color. *
Skilled ceramist demonstrates shaping of various pieces of pottery on potter's wheel; each step shown in making a bowl; special steps in completing low, flat plate and pitcher.

2812. THROWING IN BASEBALL (1947) — A V 2 EBF
11 min. *
Four accepted throws analyzed: overhand, three-quarter, side-arm, under-arm. Emphasizes overhand for accuracy and power. Proper stance and grip. Stop-, slow-motion and close-up photography used.

2813. THROWING ON THE WHEEL (1938) — E X UMINN
10 min.; silent.
Technique of modeling a case on wheel demonstrated by Eric Hellman, graduate of University of Copenhagen. Starting with piece of clay on foot-powered wheel, processes of centering, shaping bottom, lifting sides, and shaping and finishing, drying, firing, glazing, baking to completion.

2814. THRUFEED GRINDING A STRAIGHT PIN √ (1944) — A VI 1 OE
(Machine Shop Work--Centerless Grinder, Nos. 85, 86)
29, 28 min. *
Part I: Principle of centerless grinding; basic elements of centerless grinding machine; how to set up machine for actual job (limited to mounting wheel, workrest, workblade, work-guides, diamonds); how to true grinding and regulating wheels.
Part II: How to balance grinding wheel; position work for grinding; adjust work guides; take trial grind; eliminate taper in workpiece; use crown cam to dress grinding wheel; and check workpieces.

2815. THRUSHES AND RELATIVES (1938) — C II EBF
11 min. *
Characteristics, activities, habitats of bush-tit, chickadee, hermit thrush, russet backed thrush, robin, bluebird, water ouzel. Close-up and high-speed photography used. Songs reproduced.

2816. THRUWAY TO TOMORROW (1950) — A IX 1 NYSCom
20 min. **
How construction of New York Thruway (superhighway) will eliminate many traffic hazards and benefit region; system for financing. Schoolboy learns details from highway construction foreman.

2817. THUNDERING WATERS (1947) — A IX 1 NYCent
20 min.; color. **
Spectacle of Niagara Falls; surrounding points of interest; geographical, economic, historical, geological aspects of Falls.

2818. THYROID (1941) — A II 1 q BURKE
(Surgical Anatomy Series)
15 min.; color; silent. *
Dissection of muscles and tissues as for thyroidectomy, exposing sternomastoid and sternohyoid muscles and anterior jugular vein; recurrent laryngeal nerve, inferior thyroid

artery, parathyroid glands, superior thyroid artery, etc. Thyroid is severed as radical resection. Dissection of unembalmed cadavers shows natural color and condition of tissues involved.

2819. TIBIAL NERVE ANASTOMOSIS IN THE LOWER CALF (PMF 5117) (1949) — A II 1 a — USArmy-P
8 min.; color.**
Tibial nerve damage caused by missile traversing midcalf region, leaving plantar muscle paralyzed and sole of foot anesthetic. Technique of surgical repair; anatomical consideration; precautions and physiotherapy.

2820. TIDE POOL LIFE (1947) — C II — InstF
11 min.; also color.*
Species of marine life found near rocky shores and tide pools: mussels, whelks, sea-anemones, sea-urchins, abalones, studied in detail. Two versions: Elementary for lower grades; Scientific for high school and college.

2821. TIE YOUR OWN FLIES (1948) — A V 2 — HL
9 min.; also color.
The knack of tying and using trout flies.

2822. TIMBER GROWING TODAY (1947) — D I 5 — TVA
15 min.; color.**
Sustained-yield management of forests, economically sound. How forest owners in Tennessee Valley are beginning to adopt timber growing ideas. Importance of fire hazard defences; need for proper marking and cutting each year; importance of replanting.

2823. TIMBER HARVEST (1941) — D I 5 — MichDC
11 min.; color; also silent, 15 min.**
Modern lumbering practice in Michigan; harvesting of ripe trees in winter; transportation, millwork, life in camps.

2824. TIME OUT: OCCUPATIONAL THERAPY IN TUBERCULOSIS (PMF 5116A) (1949) — A II 1 1 — USArmy-UWF
26 min.**
Usefulness of occupational therapy for patient's morale and rehabilitation. For orientation of patients, hospital personnel, and nonprofessional adult groups.

2825. TIME TO SPARE (1941) — A I 1 — Mercer
22 min.*
How daily schedule of a one-teacher school can be efficiently organized by teacher-pupil planning and execution in two major time of school day on basis of broad ability groups. Activities of morning Skills Period and afternoon Work-Conference Period shown.

2826. TIME-LAPSE PHOTOGRAPHY (1951) — E IX — IntFB
10 min.; color.*
Time lapse photography demonstrated and explained.

2827. TIME-LAPSE STUDIES OF FLOWERS — C III — IO-R
15 min.; color; silent.*
Flower stalk of common snake-plant grows to full height and bursts into bloom; rose opens. Heliotrope, amaryllis, canna and begonia develop flowers. Flower tubes of tobacco plant elongate to form star-shaped clusters. Chinese iris does a floral dance. Gardenia unfolds petals.

2828. TIMESTUDY PERFORMANCE RATING (1950) — A VI 1 — PHILC
14 min. each; silent.*
A series of films to assist in training in performance rating and in checking for consistency, as follows: (1) Explanatory film describing rating; (2) Card dealing films in eight styles with unknowns ranging from 20 to 70 per film; (3) Drill press burring films ranging from 20 to 70 unknowns per film; (4) Industrial operations films, including wide variety of manufacturing operations and range from 20 to 30 unknowns per film.

2829. TIMING OF HUMAN OVULATION, THE (1949) — C II — WISTAR
18 min.; color.*
Method of performing biological test based upon pituitary hormones in the urine to determine time of human ovulation. Interpretation of findings (animated drawings and graphs).

2830. TIN CAN CRAFT (1948) — A V 1 — BSA
11 min.; also color.*
An expert shows how tin cans can be cut, bent and twisted into serviceable cooking equipment.

2831. TINNING AND SOLDER WIPING (1944) — A VI 1 — OE
(Shipbuilding--Coppersmithing--343)
26 min.*
How to clean copper tubing for tinning; how flux is applied to copper; how to tin copper tubing by hand and by dipping; how solder wiping is done; how copper reacts to heat when being tinned and solder wiped.

2832. TINY WATER ANIMALS√√(1931) — C II — EBF
11 min.*
Life processes and characteristics of common microscopic pond animals (paramecium, amoeba). Cinemicrography used. Time-lapse photography shows reproduction of amoeba by division.

2833. TIPS FOR TEACHERS (1942) — A VI 3 — JamH
19 min.
Place and value of teacher's personality; im-

portance of preparation; how presentation of material is best accomplished. How teacher must use showmanship, salesmanship, and ability of actor to help in shortening learning process.

2834. TIPS ON TYPING (1945) A VI 5
21 min.** UnderC
Proper operation of typewriter; how to improve typing abilities by (1) proper posture, (2) concentration, (3) keeping eyes continually on text, (4) pattern writing, and (5) elimination of useless motions. Mechanics of the typewriter.

2835. TO GREATER VISION (1944) A VII
28 min.** B&LO
Story of manufacture of glass for use in optical instruments and eyewear; optical principles involved; applications of instruments in science and industry, peace and war. Mixing raw materials for optical glass; melting, pouring, cooling, precise grinding and polishing, testing. How rays of light behave as they enter and leave prisms and lenses of optical glass. Reflection, refraction, focus, dispersion explained. How these principles work in science and industry; how scientist uses microscope; how technician uses spectrograph to determine composition of substance, or metallograph to learn its structure. Optical glass as aid of vision. Intricate tests made in examination of eye; examining instruments demonstrated.

2836. TO HEAR AGAIN (PMF 5052) A II 6
(1947) USArmy-UWF
33 min.**
General principles of rehabilitation of patients with impaired hearing.

2837. TO HEAR YOUR BANJO PLAY (1948) E VII
20 min.* BF
Story of American folk music with special reference to the banjo. Songs by Pete Seeger, Sunny Terry, Woodie Gutherie, Butch Hanes, Texas Gladden, etc. How circumstances and geographical areas develop characteristic music.

2838. TO MARKET, TO MARKET (1943) A VII
11 min.; color. FRITH
Various commodities traced from production through different middle-men, to retailer and consumer; problems of buying and selling. Types of markets, including large wholesale food markets.

2839. TO SAVE THESE LIVES (1950) A I 5c
10 min.; color.* ** ACS
Scope of community activities of American Cancer Society. How volunteers with variety of interests and aptitudes combat personal menace of cancer through teamwork as volunteers.

2840. TOBACCO BELT, SOUTHERN UNITED STATES (1950) D I 1
24 min. STATE
Tobacco growing in Kentucky, Virginia and in Carolinas, as major industry based on agriculture; steps in tobacco planting, cultivating, curing, manufacture of tobacco products. Views of area; life of tobacco farmers.

2841. TODAY'S CHICKS (1950) D I 2
18 min.; color. ** USDA
Specialized industry of commercial hatcheries. National Poultry Improvement Plan explained. How a typical hatcheryman, with cooperation of flock owners, specialized poultry breeders and plan supervisors, can build program resulting in better chicks. Basic operations of program shown. Importance of choosing source of chicks stressed.

2842. TODAY'S HORSE FARM--SUNRISE TO SUNSET (1947) D I 2
11 min.; color. FRITH
Caring for horses on a stock farm: balanced feeding, watering, bedding down in clean fresh straw in warm barns, comfortable paddocks; large pastures, correct harnessing, shoeing, and spraying to keep horses free from flies. How mares care for colts; horse emotions: horses shown happy, proud, excited, jealous, irritated, angry and lazily contented.

2843. TOMATO PLANT GROWING (1947) D I 1
30 min.; color; silent.* NYSExt
Recommended types of green houses, methods of raising tomato plants for market; how to treat seeds before planting, how to select soil and material for compost pile; testing soil, transplanting seedlings, spraying and irrigation, prevention of virus disease; how to load flats in trucks for market.

2844. TOMMY'S DAY (1947) A II 2
15 min.* YAF
Tommy discovers that one of his baby teeth is loose. Desirable practices of personal cleanliness, care of teeth, diet and family relationships presented. Especially addressed to young children.

2845. TOMORROW'S A WONDERFUL DAY (1948) A I 5d
48 min.; also 35 mm.* HAD
European orphan boy arrives in Israel after years in concentration camp. Maladjusted and suspicious, he is unable to accommodate to new home in cooperative colony. After crises (involving stealing, refusal to work, withdrawal) he responds to understanding love of the community. Jewish festivals.

2846. TONSILLECTOMY--SOME PREFERRED TECHNIQUES (1942) A II 1 q
12 min.; color; silent.* BURKE

Three cases with knife technique; criteria of acceptable tonsillectomy; scissors technique; basic dissection technique.

2847. TONY LEARNS ABOUT FIRE (1951) — A II 7 b — NaBFUn
16 min.; also color. **
How a fire involving several elementary school children led to whole school adopting fire safety program; how fire safety instruction and practice was integrated into regular class work.

2848. TOPICAL FLUORIDES--MULTIPLE CHAIR PROCEDURE (1951) — A II 1 e 9 — USPHS
19 min.; color. **
How by using multiple chair procedure dental hygienist can apply sodium fluoride to children's teeth, economically and efficiently.

2849. TOPICAL FLUORIDES: TECHNIC OF APPLICATION (1949) — A II 1 e 9 — USPHS
10 min.; color. **
Technic of applying a 2 percent solution of sodium fluoride to teeth of children at ages 3, 7, 10 and 13 to obtain 40 percent reduction in tooth decay.

2850. TOPOGRAPHIC MAPPING BY PHOTOGRAMMETRIC METHODS (1947) — D II — INT-GeoS
90 min.; color. **
Modern technical procedures employed by United States Geological Survey in making topographic quadrangle maps; use of multiplex method of mapping. Running basic control surveys; establishment of fourth-order elevations (supplemental control). Procurement and processing of aerial photography; preparation of diapositives for stereoscopic mapping; field completion surveys. Preparation of map manuscript for reproduction.

2851. TOTAL ABDOMINAL HYSTERECTOMY AND PERINEORRHAPHY (No. 165) (1946) — A II 1q — DG
27 min.; color; silent. **
Detailed presentation of operation on patient with cystocele, lacerated cervix, lacerated perineum and moderate prolapse of uterus. (Dr. Joe Vincent Meigs)

2852. TOTAL COLECTOMY WITH ILEO-PROCTOSTOMY FOR MEGACOLON (Hirschsprung's Disease) (1947) — A II 1q — THOR
32 min.; color; silent. **
Total colectomy with side to side ileoproctostomy performed for case of congenital dilatation of colon.

2853. TOWARD INDEPENDENCE-PARAPLEGIC REHABILITATION (PMF 5055) (1947) — A II 6 — USArmy-UWF
30 min. **
Modern developments in medicine for paraplegic victims.

2854. TOWN, THE (1944) — A IX 1 — STATE
15 min.
Life in typical American town (Madison, Indiana); contribution of people of different nationalities to American culture; equal educational opportunities in schools; public library; local newspaper; town government.

2855. TOY THAT GREW UP, THE (1947) — B VI 2 — AF
17 min. also 35 mm. *
The development of the motion picture: the traumatrope; Plateau, Reynaud.

2856. TOYS FROM ODDS AND ENDS (1940) — A V I — BF
10 min.; also silent (15 min.)*
How discarded materials may be used to make playthings, illustrated in making of wooly toy dog.

2857. TRACKING THE SLEEPING DEATH (1938) (MGM Miniature Series) — A IX 2 — TFC-MGM
10 min. *
Work of David and Mary Bruce; their searching for cause of sleeping sickness.

2858. TRADING POST√ √(1950) — A VII — RKO
15 min.
Behind the scenes story of the Merchandise Mart in Chicago; how merchandise is displayed; how purchases are made.

2859. TRAIL TO HEALTH (1947) — A II 1 d — USIndS
20 min.; color.
Dramatized story of tuberculosis among Indians (New Mexico); how two Indian lads (Pueblos) learn from mobile X-ray unit that they have the disease; what they learn about it and how they get well.

2860. TRAILER 201 (1949) — A IX 1 — STATE
40 min.
Aspects of American life as seen by truck drivers operating large trailer trucks on local and cross-country hauls. Trucking business; eastern United States landscapes, highways, farms, small towns, and Chicago, industrial center.

2861. TRAITOR WITHIN, THE (1945) — A II 1o — ACS
11 min.; also 35 mm.; color. * **
Story of cancer: cell growth, lawless multiplication of gangster cells; spread of cancer through body; possibilities of curing and controlling disease through surgery, X-ray and radium.

2862. TRANSMISSION, DRIVE SHAFT, AND DIFFERENTIAL (1944) (Automobile Operation and Maintenance--485) — A VI 1 — OE
14 min. *

How to check transmission gear shift mechanism; inspect drive shaft and differential; how to test running condition of transmission, drive shaft, and differential.

2863. TRANSPLANTATION AND ANASTOMOSIS OF RADIAL NERVE (PMF 5081) (1948) — A II 1 q — USArmy-P
17 min.; color. **
Case of severed left radial nerve which was sutured; recovery failed to ensue. Clinical findings. Technique used to accomplish repair.

2864. TRANSPLANTING SHRUBS, EVERGREENS, AND TREES (1945) — D I 3 — NYSExt
16, 16 min.; color; silent. *
Part I: How to transplant shrubs, evergreens, and trees; importance of shrubs and trees in landscaping around home; need for digging in spring or fall, tying branches, digging around and undercutting plant, use of burlap on ball of plant; heeling of nursery stock, pruning roots, applying mulch.
Part II: How to transplant tree; selecting tree, determining trenching area, digging, undercutting, applying burlap, tying limbs for transportation; how to place, prune, and plant; use of eye screws and bracing; mulching.

2865. TRANSPORTATION (Bus-Truck-Taxi) (1946) — A VI 5 — MAHNKE
11 min. *
Transportation by bus, truck and taxi; many types of equipment. Requirements; advantages and disadvantages of work. How to get into the business.

2866. TRANSPORTATION IN THE UNITED STATES (1948) — A IX 1 — MTFF
17 min. *
Importance and volume of freight transported yearly in United States; how handled (rail, plane, truck, bus, ship). How railroads are meeting demand on them by progressive improvement.

2867. TRANSPORTATION OF CASUALTIES (TF 8-1705) (1951) — A II 5 — USArmy-P
26 min. **
Many ways in which casualties are carried or dragged from combat area, emphasizing improvised methods when standard means are not available.

2868. TRANSTHORACIC ESOPHAGEAL DIVERTICULECTOMY (1948) — A II 1q — THOR
24 min.; color; silent. **
Patient had large diverticulum situated immediately above diaphragm. One-stage diverticulectomy with primary repair of esophagus performed. Value of anatomic area described as esophageal triangle.

2869. TRANSTHORACIC GASTRECTOMY (1949) — A II 1q — THOR
43 min.; color; silent. *
Operation for gastric ulcer which had undergone malignant degeneration; procedure done through thoracic cavity via incision in diaphragm. End to end esophago-jejunostomy depicted.

2870. TRANSTHORACIC PARTIAL GASTRECTOMY (No 148) (1946) — A II 1q — DG
49 min.; color; silent. **
Graphic presentation of major operation, with intrathoracic esophageo-gastric anastomosis for carcinoma of cardia. (Dr. Richard H. Sweet)

2871. TRANSTHORACIC RESECTION OF ESOPHAGUS (No. 146) (1946) — A II 1q — DG
32 min.; color; silent. **
Operation in detail of transthoracic resection of lower third of esophagus for carcinoma including splenectomy. Patent esophageo-gastric anastomosis at level of 7th rib. (Dr. Ralph Adams.

2872. TRANSTHORACIC TOTAL GASTRECTOMY (No. 248) (1946) — A II 1q — DG
38 min.; color; silent. **
Graphic presentation of major operation with intrathoracic esophageo-jejunal anastomosis for carcinoma of the stomach. (Dr. Richard H. Sweet)

2873. TRAPPERS AND TRADERS (1948) — A IX 2 — IntFB
10 min.; and color. *
Indian trappers of North America (Canada); development of fur trade through Montreal. Hudson Bay area: how pelts moved to market by water ways.

2874. TREASURE HOUSE (1951) — A I 2 — McG-H
15 min.
Tour of Smithsonian Institution: collections, displays, models, panoramas, etc. Research projects and relationship with National Gallery of Art, Freer Gallery, National Zoological Park.

2875. TREATMENT OF ERYTHROBLASTOSIS FETALIS BY SUBSTITUTION TRANSFUSION (1947) — A II 1o — JMH
25 min.; color; silent. **
Resume with pathologic slides of significant pathologic changes in crythroblastosis including kernicterus and histologic slides of significant liver changes and peripheral blood smear. Technics of procedures described enumerated step by step; illustrated by actual performance on screen. Charts show comparative results. Methods using superior sagittal sinus, radial artery and umbilical vein included.

2876. TREE GROWS FOR CHRISTMAS (1949) D I 5 USDA
11 min.; also color. **
Christmas tree in history and legend; Christmas tree industry today. How cutting of Christmas trees can be good forestry. How trees are marked, cut and marketed; how tree should be handled when brought into home.

2877. TREPONEMA PALLIDUM FROM SYPHILITIC ULCER (1947) A II 1c SAB
4 min.; silent. *
Dark-field picture of Treponema pallidum showing tendency of organisms to bend in middle; slight motility and regularity of spirals. (Material is scrapings from primary sores of syphilis). Some fields clear, in which treponema is practically by itself; other fields crowded, in which treponema can be made out against background of red blood cells, pus cells, and debris. (Dr. Adrianus Pijpher, South Africa)

2878. TRIANGLE OF FIRE, THE (1950) A II 7c GMILLS
16 min.
Source of ignition, oxygen and combustible material, three necessary factors in fire. Common causes of fires in flour mills. How flour dust under certain conditions can be highly explosive. How to prevent such fires.

2879. TRICHINOSIS (1944) A II 1r IO-R
22 min.; color; silent. *
Trichinosis: how infestation occurs in hogs and in man. Pressed-muscle slide demonstrated for direct microscopic examination of meat for trichinae; technic for digestion of meat with pepsin. How infectivity of larvae may be determined.

2880. TRICHOMONAS VAGINALIS FROM HUMAN VAGINA (1947) A II 1c SAB
4 min.; silent. *
One to three trichomonas cells usually shown in dark-field preparations from a drop of vaginal secretion. Asymmetry of body, flagella, cytostrome, and attachment of flagella and undulating membrane. (Dr. Adrianus Pijpher, South Africa)

2881. TRIODE, THE: AMPLIFICATION (1944) D II OE
(Engineering--Electronics--177)
14 min. *
Diode principle; electric field in diode; electric field in triode; triode amplifier circuit; amplification of D. C. voltage changes; amplification of alternating voltages; distortion; amplification of audio frequency signals; triode principle.

2882. TRIPLE ACTION (1950) A VI 1
20 min.; color. ** Soco-V
How modern automobile design has produced new lubrication problems; oil problem resulting from reduced clearance between metal parts in high compression engine; anti-acid, detergent, and high viscosity index qualities in oil; viscosity of different types of oil under different temperature conditions.

2883. TRIPLE THREAT OF BRUCELLOSIS, THE (1951) D I 4 USDA
30 min.; also color. **
Three phases of brucellosis as disease attacks animals. Nature of disease; measures for control eradication.

2884. TRIPLET PREGNANCY (1940) A II 1 h
15 min.; color; silent. * BURKE
One intrauterine; two extrauterine. Demonstration of pregnancy sac showing large blood sinuses in its wall. Delivery of twins, one triplet dead. Diagnosis established of interstitio-isthmal pregnancy.

2885. TROPICAL OPOSSUMS (1941) C II
15 min.; color. * WISTAR
Additions to laboratory animals available for embryological research, which are being bred and reared on Morris Biological Farm of The Wistar Institute. Types shown: Metachirus ("woolly"), Metachirops ("gray masked"), Marmosa isthmica (murine). Offspring raised from pouch young after one year in captivity; feasibility of domestications; pouch young of various developmental ages. (Dr. Edmond J. Farris)

2886. TROUBLE LURKS BELOW (1942) A VI 1 Humble
30 min.; color.
How to combat a wild oil well on fire with aid of directionally drilled well. Detailed planning, unusual types of equipment required, methods employed. Operations underground explained.

2887. TROUBLE SHOOTING PROBLEMS: DISASSEMBLING THE ENGINE (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--268)
13 min. *
How to remove oil sump, valve tappet, and gear case cover assemblies; separate crankcase and remove crankshaft assembly and camshaft; disassemble crankshaft and gear case cover assemblies.

2888. TROUBLE SHOOTING PROBLEMS: FUEL INDUCTION (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--276)
16 min. *
How to correct failure to develop full power, rough running at idling speed, and overheating.

2889. TROUBLE SHOOTING PROBLEMS: IGNITION (1944) A VI 1 OE
(Airplane Maintenance--Power Plant Maintenance--275)

19 min.*
How to locate trouble within ignition system when engine fails to start, runs rough, or fails to develop full power.

2890. TROUBLE SHOOTING PROBLEMS: MECHANICAL AND LUBRICATION (1944) (Airplane Maintenance--Power Plant Maintenance--274) 10 min.* — A VI 1 OE
How to find what part of engine is causing trouble; importance of checking obvious symptoms.

2891. TROUBLE SHOOTING: YOUR CAR (1944) (Automobile Operation and Maintenance--490) 12 min.* — A VI 1 OE
What driver should do to locate and correct minor car troubles; how to follow orderly step-by-step procedure in checking why car won't start; how to recognize symptoms of impending trouble.

2892. TROUT FACTORY (1949) 9 min.; also color.* — C II HL
How one state (U.S.A.) stocks its lakes and streams with fish. Development of trout shown, from egg to hook.

2893. TRUCK FARMER √ (1939) 11 min.* — D I 3 EBF
Chief truckfarming areas in United States. Activities on truck farm in Rio Grande Delta; scientific methods in farming; interdependence of producer and consumer.

2894. TUBE BENDING BY HAND (1943) (Aircraft Work--Tube Bending--142) 15 min.* — A VI 1 OE
Why tubes must be bent for installation in airplanes; how to set up tube bending machine for job; how various parts of the machine function.

2895. TUBERCULOSIS (1950) 10 min.; color. — A II 1d STATE
How tuberculosis affects lungs; how sick people infect well people. Upon contracting tuberculosis, Mrs. Brown undergoes proper treatment; takes precautions against infecting others; recovers health, saves family from sickness.

2896. TUBERCULOSIS √ √ (1940) 11 min.* — A II 1d EBF
Nature, diagnosis, treatment of pulmonary tuberculosis; processes of infection and re-infection explained; preventive measures and curative treatment stressed (rest, nourishing food, fresh air, sunshine, cleanliness). Elaborate sanitaria shown.

2897. TUBERCULOSIS AND HOW IT MAY BE AVOIDED (1940) 11 min.; silent.* — A II 1d EBF
How tubercle bacilli are grown in laboratory, how stained; appearance under microscope. Where tubercle bacilli set up infection in lungs; the lymphatics; how they collect tubercle bacilli which escape walling-off process of first infection. How body cells become sensitive and react more promptly to later infection. Thorough physical examination illustrated; tuberculin test applied, positive reaction shown, x-ray pictures reproduced. Boy examined then goes to preventorium to avoid further infection; intensive health training. Typical daily routine at preventorium.

2898. TUESDAY IN NOVEMBER (1945) 20 min. — A VIII STATE
Election day activities U.S.A., presidential elections, 1944. Individual citizen's participation in democratic government. Procedures in electing president and congressmen; executive, legislative, and judicial branches of U.S.A. federal government explained. Differences of individual opinion expressed. Election returns; universal acceptance of outcome of balloting.

2899. TUGBOATS (1947) 11 min.* — A IX 1 EBF
Tugboat pulls freighter out of berth at dock; tows large oil barge across harbor; joins with other tugs to dock giant ocean liner. Members of crew at various duties; parts of tug's mechanism shown. Glimpses of other harbor activities.

2900. TULSA, OKLAHOMA (1950) 20 min. — A IX 1 STATE
Early history; oil production; failure of oil deposits; conversion to oil refining; diversified industry; agriculture. Tulsa University. Democratic planning (in college and to meet municipal development).

2901. TUMOR CELLS AND MACROPHAGES IN TISSUE CULTURES--RAT SARCOMAS AND CARCINOMAS (1932) 13 min.; silent.* — A II 1o WISTAR
Cultures from five rat sarcomas, one mouse sarcoma, one rat adenocarcinoma, one rat medullary carcinoma and a metastic nodule of latter in a lymph node. Malignant cells, normal macrophages and lymphocytes, phagocytosis by macrophages, mitosis of sarcoma and carcinoma cells.

2902. TUMORS OF THE BRONCHI (1946) 15 min.; color; silent.* — A II 1o JHMF
Bronchoscopic appearance of various types of tumors of bronchi, principally carcinomas and adenomas. X-ray pictures and short clinical discussions. (Drs. P. H. Holinger and Ralph G. Rigby)

2903. TUNA PACKING (1947) D III
11 min.; also color. PHP
How tuna is processed. Unloading frozen fish from clipper; how canned, cased and made ready for market.

2904. TURNING A CYLINDER BETWEEN CENTERS (1944) A VI 1 OE
(Woodworking--Wood Lathe--313)
17 min.*
How to choose and center stock for job; mount stock in wood lathe for turning between centers; select proper speed and cutting tools; use parting tool; skew chisel; and sand turning work.

2905. TURNING A TAPER WITH THE TAILSTOCK SET OVER (1942) A VI 1 OE
(Machine Shop Work--Engine Lathe--44)
17 min.*
Three methods commonly used to measure tailstock set-over when turning tapers. Methods of calculating amount the tailstock must be set over to cut a given taper.

2906. TURNING RESEARCH INTO POWER (1950) D II CateT
22 min.; color.**
Processes involved in design and manufacture of new type V-8 and V-12 diesel engines.

2907. TURNING TAPER WORK √ (1944) A VI 1 OE
(Woodworking--Wood Lathe--314)
12 min.*
How to center cylindrical wood stock for spindle turning; make clearance cuts; establish diameters of taper; how to turn single taper; establish diameters for turning two tapers from single piece of material; and turn tapers.

2908. TURNING WORK HELD ON A FIXTURE √ √(1944) A VI 1 OE
(Machine Shop Work--Engine Lathe--58)
21 min.*
How to mount irregularly shaped casting which cannot be held in chuck; how to mount and center fixture on lathe; how to grind tools for machining of brass.

2909. TURNING WORK HELD ON A MANDREL √ √(1944) A VI 1 OE
(Machine Shop Work--Engine Lathe--61)
20 min.*
What a mandrel is, on what type of job it can be used to advantage; how to fit mandrel into workpiece; how to cut bevel, using compound rest; how to calculate speed and feed and set controls.

2910. TURNING WORK IN A CHUCK (1944) A VI 1 OE
(Woodworking--Wood Lathe--316)
15 min.*
How to mount work on faceplate; turn one face of work; make chuck for opposite face; fit finished face to chuck; and turn second face.

2911. TURNING WORK OF TWO DIAMETERS √ (1941) A VI 1 OE
(Machine Shop Work--Engine Lathe--7)
14 min.*
Sequence of operations followed when turning a gear blank with its shaft from a solid piece of round stock.

2912. TURNING WORK ON A FACE PLATE √ (1944) A VI 1 OE
(Woodworking--Wood Lathe--315)
15 min.*
Various types of faceplates; how to attach stock to faceplate; true up work; scribe work for inside turning; use roundnose and diamond point chisel; how to smooth bottom of recess.

2913. TURRET LATHE, THE--AN INTRODUCTION (1944) A VI 1 OE
(Machine Shop Work--Turret Lathe--212)
17 min.*
Functions of head, hexagon turret, square turret, and bed; how to determine sequence of operations; take a multiple cut; and combine cuts from hexagon and square turrets.

2914. TVA √ √(1945) D I 1
18 min.* RKO
History making results of Tennessee Valley Authority; in electric power, in prosperity, fuller and richer life for people of valley. Through electricity manufactured, fertilizers developed. New methods of planting; contour plowing, levels and ditches. New farm industries developed: dairy farming, cattle raising, meatpacking. From lakes created by dams, waterway formed leading to sea.

2915. TWELVE MONTHS GREEN (1947-8) D I 1
18 min.; color.* ** MAES
Farmer who makes his living from pastures and livestock, through year round grazing, doubles milk production and profits.

2916. TWENTY-FOUR HOURS OF PROGRESS (1950) A VII
28 min.** AmPetrol
What oil means "around the clock; " ways in which oil, oil companies and oil men contribute to strength, progress and security of the United States. Uses of oil products on land, sea, in air; in factories, homes, on farms.

2917. TWIXT THE CUP AND THE LIP (1940) A II 3
22 min.; also 35 mm.** NYH

Epidemic of colds brings to light unsatisfactory conditions in handling of cooking, eating and drinking utensils in city of Midvale; health officials go into action, and town cleans dishes and glasses. Approved methods and means of complying with sanitary regulations on cleansing utensils.

2918. TWO LITTLE RATS AND HOW THEY GREW (1947) — A III 3 DCSt1.
11 min.; color.
Rat feeding demonstration conducted in fifth grade classroom as nutrition education experience.

2919. TWO VIEWS ON SOCIALISM (1950) — A VIII CORONET
15 min.; also color.*
Arguments of high school forum contrast socialism and capitalism; two conflicting opinions of socialism in practice illustrated by episodes from family life as it might be in socialist society.

2920. TYPHOID BACILLI (A Study of Motility and Agglutination). (1943) — A II 1c SAB
16 min.; silent.*
Motility of typhoid bacilli recorded by means of dark-ground microscopy employing sunlight. Typhoid, and other motile bacilli, appear to be propelled by long slender tails. At rest, tail unwinds itself into two rather broadly coiled spiral flagella attached somewhere near middle of body of bacillus and take up position at angle to its long axis. When resuming activity flagella revolve round their own axis, stretch and twist round one another at rear end of bacillus where they form tail. Agglutination of living, motile typhoid bacilli by addition of O-agglutinating serum. Bacillary bodies become attached at poles, form clumps which gradually increase in size. Repulsion lost, surfaces become more cohesive; effect of H-agglutinating serum: bacilli held together in loose clumps. (Dr. Adrianus Pijpher, South Africa; re-editing done by Dr. Harry E. Morton, U.S.A.)

2921. TYPHOID CARRIER, THE√√(1947) — A II 1j I.I-A.A.
9 min.; color.
How typhoid bacillus may be transmitted especially by unwitting human "carrier"; precautionary measures indicated.

2922. TYPHOID VACCINE RESEARCH (PMF 5165) (1950) — A II 1 p USArmy-P
29 min.; color.**
Application of classical and special techniques of typhoid vaccine research.

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2923. U.C.L.A. (1948) — A I 1 STATE
44 min.
Typical student life; student government, athletics, social events, classroom activity, student self-support at University of California at Los Angeles.

2924. U.S. COMMUNITY AND ITS CITIZENS, A√√(1948) — A IX 1 UWF
20 min.*
Group of school children make survey of their community (Milford) to learn how it functions; how various community agencies provide protection and transportation and marketing services supply people's daily needs. Much of food supply is provided by farmers of community who in turn share in all community services.

2925. ULNAR NERVE AND SOFT TISSUE DEFECTS (PMF 5133) (1950) — A II 1 a USArmy-P
10 min; color.**
Clinical case material used to demonstrate method of accomplishing simultaneous repair of soft tissue defect and ulnar nerve defect in forearm.

2926. ULNAR NERVE SUTURE AT THE WRIST (PMF 5092) (1948) — A II 1 q USArmy-P
10 min.; color.**
Preoperative, postoperative and surgical management of patient with ulnar nerve injury resulting from shell fragment penetrating ulnar surface of left wrist.

2927. UNCONSCIOUS MOTIVATION (1950) — A II 4c ASSOC
38 min.*
Nucleus of experimental neurosis buried at unconscious level by hypnotic suggestion in young man and young woman. At conscious level, neurosis develops and manifests itself. Subjects report feelings of inner tension, worry and guilt. In reviewing possible causes of their mental state, subjects initially offer explanations superficial and unrelated to actual motivation. Clues to unconscious forces at work come from symbolic dreams that subjects report and analyze. Inkblot, thematic apperception, word-association tests. By sharing feelings and thoughts, customary in group therapy, subjects help each other towards recovery, full understanding of neurosis; and are freed from feelings of guilt and anxiety. (Dr. Lester F. Beck, Department of Psychology, University of Oregon)

2928. UNDER SUMMER SKIES (1940) — D I 1 DeK
16 min.; color. **
Phases of inbreeding and crossing for better hybrid seed corn.

2929. UNDER WESTERN SKIES (1946) — D I 1 IntHar
28 min.; color. **
Dry and irrigation farming practices; development of soil conservation districts, in western and northwestern United States.

2930. UNDERSTAND YOUR EMOTIONS (1950) — A II 4 c — CORONET
13 min.; also color.*
Effects of emotions on voluntary and involuntary behavior; process of conditioning at work, in animals and in human beings.

2931. UNDERSTANDING BASKETBALL (1948) — A V 2 — YAF
10 min.*
Basketball explained to the spectator. Basic rules and plays: scoring, fouls, etc. Common rules of courtesy in the game.

2932. UNDERSTANDING CHILDREN'S DRAWING (1950) — E IV — AF
10 min.*
Child's progress followed from primitive scribblings, through recognition of form and design, to emergence of composed story-telling picture. Processes themselves; clues to nature and development of child's artistic instincts. Children aged three to seven filmed in art classes at Manhattan's Jewish Center.

2933. UNDERSTANDING CHILDREN'S PLAY (1948) — A II 4c — Vassar
10 min.*
Panorama of a nursery school room. Variety of materials made easily accessible to children: blocks, poster paint, crayons, clay, water, workbench, finger paint, miniature life toys and housekeeping equipment. Four and five year old children shown spontaneously playing with each of these materials, expressing ideas and feelings for which they may have no words. In their play they may also find release for pent-up energies and aggressive impulses. (Narration stresses that adult should watch and listen to each child at play, for through this kind of observation the adult can learn to understand children better and find ways of helping each child to grow and develop.)

2934. UNDERSTANDING YOUR IDEALS (1950) — A VI 2 — CORONET
13 min.; also color.*
High school boy learns what ideals are; how they influence and are influenced by character; relationship of ideals to well-being and happiness.

2935. UNFINISHED RAINBOWS (1941) — A VII — ALCOA
37 min.; color; also 35 mm.**
Story of aluminum, dramatized. Napoleon's vain search for strong light metal for military purposes. Work of Charles Martin Hall, from homemade equipment in his father's woodshed to development of present day industry based on economical production of widely used metal.

2936. UNIFORM CIRCULAR MOTION (1952) — C VIII — McG-H
(College Physics--Mechanical Series)
6 1/2 min.
Uniform circular motion defined and demonstrated. Changes in velocity vector shown; accelerated motion. Expression for magnitude of centripetal acceleration derived. Meaning of centripetal force explained; illustrated.

2937. UNION AT WORK (1950) — A I 5 a — TextWU
24 min.*
How Textile Workers Union works; local union meeting, biennial convention, meeting of executive council. How cotton mill worker receives help in organizing plant; contract negotiation, union support of striking workers, investigation of grievances, political action.

2938. UNION LOCAL (1951) — A I 5a — STATE
30 min.
Structure and activities of a union at local level: duties of union officers; handling of grievances; collective bargaining, wage and work contract negotiations; and other labor-management relations.

2939. UNITED STATES DEFENSE AGAINST FOREIGN PLAGUE (1950) — A VIII — FRITH
11 min.; color.
Work of United States Public Health Sanitary Inspectors who examine ships entering from foreign ports to prevent ships or animals from bringing disease into United States.

2940. UNITED STATES ELECTS PRESIDENT TRUMAN (1949) — A VIII — STATE
8 1/2 min.
Presidential election, U.S.A., 1948; national party conventions, nomination of candidates; political campaigns; casting votes, tabulating votes. Short biographical sketches of Harry S. Truman and Thomas E. Dewey.

2941. UNITED STATES MILITARY ACADEMY, THE (1941) — A I 1 — TFC-Columbia
(Washington Parade Series)
10 min.*
Life in the United States Military Academy at West Point, New York. Courses of study explained. Cadets shown in assembly, practice and at graduation.

2942. UNITED STATES NAVAL ACADEMY, THE (1941) — A I 1 — TFC-Columbia
(Washington Parade Series)
11 min.*
Life in the United States Naval Academy at Annapolis, Maryland. A typical day presented.

2943. UNITED STATES TREASURY (1939) — A VIII — TFC-Columbia
(Washington Parade Series)
10 min.*
Tour of various departments of the Treasury; the making of paper money and the handling of old money returned to the Bureau.

2944. UPPER SELECTIVE THORACOPLASTY (No. 120) (1946) — A II 1q DG
29 min.; color; silent.**
Operation in three stages (10 to 14 days intervals) for pulmonary tuberculosis. (Dr. Richard H. Overholt and Associates)

2945. UREASE CRYSTALLIZATION (PMF 5115) (1948) — A II 1q USArmy-P
6 min.; color.**
Principle steps used to isolate first enzymes as performed by Dr. J. B. Sumner.

2946. URETERO-SIGMOID TRANSPLANT AND URETERO-SIGMOID ANASTOMOSIS: A COMPARISON OF TECHNIQUES (1951) — A II 1q BURKE
28 min.; color; silent.*
(A) Modified Coffey #1 Technique. Sub-umbilical midline incision. Sigmoid anchored at site of contemplated transplant. Short trough made in taenia of bowel to receive ureter; ureter pulled into bowel and sutured--a distance of 4 cm. separates sites of transplant. Sigmoid sutured to parietal peritoneum to avoid traction and kinking of ureter. (B) Uretero-sigmoid anastomosis, mucosa-to-mucosa technique. Advantages: simplicity; leakage minimized; stricture eliminated; dilation of ureter not a contraindication. Operative procedure demonstrated in detail.

2947. USE AND CARE OF HAND FILES (1942) — A VI 1 JamH
15 min.
Identification of various parts of file; various types of commonly used files. Correct positions and movements to be used when filing. Uses of various files, shown and explained. Instructions on cleaning and caring for files after they have been used.

2948. USE AND CARE OF HAND TOOLS (1943) — A VI 1 PROTO
92 min.
Proper and improper use of tools, how to avoid hazards of use, how to maintain tools in good condition: (1) Wrenches, including sockets and attachments; (2) Pliers and screwdrivers; (3) Chisels; (4) Hammers; (5) Punches, drifts, bars; (6) Hacksaws.

2949. USE OF AIRCRAFT FOR INSECT CONTROL (4.077)√ (1949) — A II 3a CDC-UWF
13 min.**
General techniques, materials, equipment developed in use of aircraft for mosquito control. Dusting with paris green, spraying, thermal aerosoling with DDT. Plane adaptations for dusting; dust hopper, wind activated agitator, feed control gate, Venturi discharge throat. Spraying techniques: tank, pump, discharge nozzles. Thermal aerosoling equipment: insecticidal solution, pump, spray nozzles, exhaust stack extension ending in a Venturi where hot exhaust gases break up insecticidal spray into smaller particles. Preparations for aircraft insect control operations: installing equipment, securing inspection certificate for air worthiness, calibrating rate of feed, determining size of particles and width of swath. Field surveys; pilot studies; flying hazards. Appraisal of results by means of larvae and adult mosquito counts in treated area.

2950. USE OF DIGITALIS IN HEART FAILURE, THE√ (1948) — A II 1q WYETH
35 min.; color.**
Comparison of pharmacological and clinical effects of various digitalis glycosides.

2951. USE OF FORESTS (1949) — D I 5 CORONET
10 min.; also color.*
Forest areas of the United States; value as economic resource, areas for recreation and habitats of wild-life. Numerous uses of wood and of wood products.

2952. USE OF THE MICROSCOPE√ (1949) — C VIII ScieFC
20 min.; color.*
Use and care of various types of microscope, including magnifying glass, dissecting microscope, and compound microscope; principle of operation, component parts.

2953. USES UNLIMITED (1948) — A VII MICRO
40 min.; color.**
How the micro switch is manufactured, break-down by parts; uses; importance of micro switch in industry; how tests are applied to each part in process of manufacture; safety factors.

2954. USING A BORING BAR BETWEEN CENTERS√ (1944) (Machine Shop Work--Engine Lathe--64) — A VI 1 OE
22 min.*
How to set up boring bar between centers of lathe; to clamp irregular workpiece on lathe carriage; to align workpiece center with lathe centerline.

2955. USING A FOLLOWER REST√ (1943) (Machine Shop Work--Engine Lathe--63) — A VI 1 OE
21 min.*
What the follower rest is, and when to use it; how to mount follower rest on lathe; adjust jaws of the follower rest to work; and lubricate work to prevent damage to jaws and workpiece.

2956. USING A PORTABLE SPRAY GUN√ (1945) (Aircraft Work--Finishing--289) — A VI 1 OE
26 min.*
How pressure tank operates; how to clean port-

able spray guns; adjust paint, spray, air controls; stroke while painting; use suction type spray gun.

2957. USING A SHELL END MILL √ (1944) — A VI 1 OE
(Machine Shop Work--Vertical Milling Machine--72)
21 min.*
How vertical milling machine differs from other milling machines; how to produce flat surface with shell end mill; use sliding head; what speed and feed are, and how to calculate.

2958. USING A STEADY REST √√ (1943) — A VI 1 OE
(Machine Shop Work--Engine Lathe--62)
25 min.*
What steady rest is, when to use it; how to spot work for location of steady rest; mount steady rest on lathe; adjust jaws of rest to work.

2959. USING A STEADY REST WHEN BORING √ (1944) — A VI 1 OE
(Machine Shop Work--Engine Lathe--65)
21 min.*
How to mount long casting on lathe faceplate; to turn true bearing spot for supporting workpiece with steady rest; to position and adjust steady rest.

2960. USING THE BANK (1947) — A VII EBF
11 min.*
Functions and services of bank explained by close observation of its principal activities; how savings account works; how banks lend money; how checking account functions; a check traced on its rounds. The bank in role of convenient source of ready cash for depositors.

2961. USING THE CLASSROOM FILM √√ (1945) — A VI 3 EBF
24 min.*
Methods of using classroom film in teaching shown in classroom situation; selection of subject, preview, preparation for display, display, discussion guidance. Subsequent activities suggested.

2962. USING VISUAL AIDS IN TRAINING (1944) — A I 1 OE
(Problems of Supervision--167)
14 min.*
Instructor, teaching class use of micrometer, follows carefully planned procedure involving use of training motion picture, a coordinated filmstrip, and an instructor's manual.

2963. UTERINE CANCER: THE PROBLEM OF EARLY DIAGNOSIS (1951) — A II 1 O ACS
(No. 4, Medical Series)
21 min.; color. * **
How deaths from cancer of the uterus may be reduced in number by adherence in general office practice to routine pelvic examination of all adult women. Cytologic method of screening for malignant tumors as part of pelvic examination; final verification of diagnosis dependent on tissue biopsy.

V

2964. VACCINATE AGAINST SMALLPOX √√ (1947) — A II 1 j I.I-A.A.
8 min.; color only.
Mass protection against smallpox by individual vaccination; multiple pressure technique demonstrated.

2965. VACUUM TUBES √√ (1945) — C VIII EBF
11 min.*
Animated drawing explain operation of radio vacuum tube in terms of filament, plate, grid circuits. Tube's three functions: amplifier, rectifier, oscillator.

2966. VAGINAL HYSTERECTOMY (No. 66) (1939) — A II 1q DG
27 min.; color; silent.**
Procedural film: techniques in close up of operation for uterine prolapse, suture method. (Dr. Louis E. Phaneuf)

2967. VAGOTOMY FOR CHRONIC NONSPECIFIC, ULCERATIVE COLITIS (1949) — A II 1q THOR
16 min.; color; silent.**
New approach to treatment of fulminating idiopathic, nonspecific, ulcerative colitis shown in form of transabdominal infradiaphragmatic bilateral vagotomy.

2968. VAGOTOMY OF DUODENAL ULCER (PMF 5064) (1947) — A II 1q USArmy-P
11 min.; color.**
Preoperative, surgical, and postoperative phases of vagotomy; surgical program in cases of duodenal ulcer difficult or impossible to control under medical regime.

2969. VALLEY OF THE TENNESSEE (1941) — A IX 1 STATE
29 min.*
Activities and achievements of the Tennessee Valley Authority, a large project for power development, flood control, and improved land use in Tennessee River basin. Benefits in increased agricultural production and improved living standards. How skepticism of local people and long established life patterns were gradually changed.

2970. VALLEY TOWN (1942) — A VII NYFL
26 min.*
Workers of typical (U.S.A.) steel town, displaced by automatic machinery; their predicament points up need to train men for jobs under

new conditions produced in industry by technological advancement.

2971. VELOCITY OF CHEMICAL REACTIONS √√(1937) — C IV EBF
11 min.*
How nature, concentration and temperature of reacting substances affect velocity of chemical reactions. Velocity of molecules, spheres of influence, vibrational energy. Reversible reactions. Chemical equilibrium.

2972. VERNIERS (1941) — A VI 1 OE
(Machine Shop Work--Precision Measurement--4)
19 min.*
Principles of the vernier scale and its application in precision measuring. Animation used.

2973. VERSATILE SOYBEAN, THE (1951) — D I 1 STATE
20 min.
Scientific farming methods of raising soybeans as source of income, food for home use, and rotation crop. Diagramatics of soybean grinder and oil press.

2974. VISIT WITH COWBOYS (1949) — A IX 1 EBF
11 min.*
City boy visits western ranch; sees riding, roping, branding, fence riding, rodeo.

2975. VISUALIZING AN OBJECT √ (1944) — A VI 1 OE
(Machine Shop Work--Blueprint Reading--51)
9 min.*
How a blueprint is developed; how dimensions are shown by different views; how various kinds of lines are shown on a blueprint.

2976. VITAL SIGNS AND THEIR INTERRELATION, THE (1944) — A II 1 1 OE
(Nursing--406)
32 min.*
Physiology of respiratory, heat regulatory, and circulatory systems; their inter-relation; how to ascertain and record vital signs; how to take care of equipment.

2977. VITALLIUM CUP ARTHROPLASTY (No. 281) (1946) — A II 1q DG
34 min.; color; silent.**
With secondary bony ankylosis. Technique requiring special skill and equipment for operation; hip gauges and reamers used to insure properly fitted cup. (Dr. M. H. Smith-Petersen)

2978. VOCAL MUSIC (1950) — E VII EBF
11 min. *
Basic techniques of singing; emphasizes joys of singing and work necessary to produce a trained voice.

2979. VOICE OF A CHOIR (1952) — E VII STATE
20 min.
Story of Bach Choir of Bethlehem, Pennsylvania; how woven into cultural fabric of community. Views of choir members in their homes, at work; in town life; choral music score, including "Dona Nobis Pacem".

2980. VOLCANO (1949) — C VI UofC
10 min.
Pictorial record of Paricutin eruption. Form action of cinder cone; composition of smoke column; origin of fuma roles and of lava flows.

2981. VOLCANOES IN ACTION √√(1945) — C VI EBF
11 min. *
Volcanoes as second factor in gradation. Non-eruptive volcanic action forming batholiths, dikes, sills, columnar joints, laccoliths. Resulting mineral deposits and rock transformations. Effects of volcanic eruption shown. Examples of extinct and active volcanoes.

2982. VOLLEYBALL FOR BOYS (1941) — A V 2 CORONET
10 min. *
How to serve, volley and spike ball; offensive and defensive play shown in regular and slow motion photography. How game may be modified to suit age and number of players.

W

2983. WAGON DRILLING MADE EASY (1951) — A VI 1 GAR-D
33 min.; color. **
Proper operation and maintenance of wagon drill and portable air compressor used on heavy construction projects and quarrying operations. Safety factors emphasized.

2984. WARD CARE OF PNEUMONIA PATIENTS (TF 8-1650) (1950) — A II 1 1 USArmy
18 min. **
Pneumonia as primary cause of death. Care of pneumonia patients by nurses and medical orderlies. Mechanics and operation of the oxygen tent. Rules of positive health.

2985. WARD CARE OF PSYCHOTIC PATIENTS (TF 8-2090) (1945) — A II 4 a USArmy-P
44 min. **
Duties and methods used by ward attendants in caring for psychotic patients in closed wards.

2986. WASHINGTON, D.C. (1938) — A IX 1 TFC-Columbia
(Washington Parade Series)
9 min. *
Aerial view of city of Washington; brief visits to buildings of many departments of government (Congress, in joint session; Supreme Court, Lincoln Memorial, White House, Treasury, Department of Justice, etc., etc.).

2987. WASHINGTON IRVING (1949) A IX 1
18 min. * EBF
Biography of Irving, writer and lawyer; travels abroad; incidents which influenced his writing.

2988. WASTAGE OF HUMAN RESOURCES (1927) A II 3
11 min. * EBF
Wastage of human resources caused by disease, accident, alcoholic and drug addiction, mental disease, crime and war. Society's failure to provide healthful, safe, effective living conditions.

2989. WATCH THAT QUOTATION (1949) A IV 5
10 min.; also color. * CORONET
Importance of quoting accurately; general importance of authority behind statements; how to quote in speech and in writing; and how to read and to listen to quotations.

2990. WATCHTOWER OVER TOMORROW (1945) B I
10 min. * TFC-MGM
The Dumbarton Oaks proposals for international security; responsibility of United Nations Council to insure permanent peace.

2991. WATER (1948) D I 1
11 min.; also 35 mm. ** USDA
Story of water; its numerous values and its potential destructive power when uncontrolled.

2992. WATER BIRDS √√(1945) C II
11 min. * EBF
Characteristics, habits, environment, adaptivity of egret, mallard duck, Canada goose, brown pelican; flamingo and lesser scaup. Migrations.

2993. WATER CYCLE √√(1947) C VIII
11 min. * EBF
Animated drawings show evaporation into atmosphere; condensation, precipitation. Seepage; water table, movements of ground water; circulation of water on earth's surface.

2994. WATER FOR A NATION (1949) D I 1
19 min.; also 35 mm. ** USDA
How farmer depends on water; nation depends on farmer to guard water supply through soil and conservation practices. Water as enemy in floods. How conservation farming prevents run-off and so contributes to prevention of floods How such practices help farming in arid areas.

2995. WATER FOR MILLIONS (1950) D II
34 min.; color. ** LAWP
Importance of water supply to large metropolitan area illustrated by story of water as brought from the High Sierras into homes of Los Angeles, California.

2996. WATER FOR THE CITY (1951) D I 1
20 min.; color. UofC
How watershed areas receive and store water; and release it. Particular reference to California's water problems. Interaction between watercycle and various parts of watershed; conservation measures to restore damaged watershed.

2997. WATER, FRIEND OR ENEMY (1950) A II 3
9 min.; color. STATE
How water is polluted by human waste; how pollution causes sickness; how simple protective measures can prevent pollution of springs and wells; how water can be purified by boiling.

2998. WATER IN THE AIR √ (1949) C VIII
(Experiences in Science Series) Inst F
10 min. *
Water cycle explained in experiences of two boys. In simple experiment in kitchens they evaporate water and make rain.

2999. WATER IN THE WEST (1951) D I 1
27 min. ** RECLAM
Survey of reclamation program for putting scant water resources of arid western United States to work irrigating land, producing hydroelectric power, performing many other services to the people. History of western settlement by pioneers sketched; how federal government helped make a forbidding land habitable and fruitful. How Colorado, Columbia, Missouri, Sacramento-San Joaquin and other basins are being developed.

3000. WATER ON THE LAND √√ (1947) D I 1
9 min.; color I.I-A.A.
Importance of irrigation (increases crop production); simple methods of conservation and distribution any farmer may apply to land near a supply of water.

3001. WATER POWER √√(1937) C VIII
(World Energy Resources Series) EBF
11 min. *
Introducing concept of water as power source; how harnessed. Development of water power in U.S.A. from colonial mills to giant modern hydroelectric plants. Transformation of potential energy into kinetic energy shown in animated drawings. Survey of world potential water power.

3002. WATER SUPPLY (1947) C VIII
11 min.; also color. ACAD
Ground water; how it becomes available to man: natural springs, Artesian wells, pumps; how cities obtain surface water and make it fit for human consumption by softening, purification, etc.

3003. WATER WORKS FOR US (1949) C VIII
10 min.* YAF
Many ways in which water works for man in his

everyday life, in and outside home, as liquid, gas, and solid. Concept of water pressure; factors which govern it.

3004. WATERFOWL IN ACTION (1949) C II
10 min.; color.* UMINN
Field identification of wild fowl: Gadwall, spoonbill, blue and green winged teal, the diving ducks and the large snow geese, whistling swans, etc. Feeding, resting, courting and in flight during spring migration.

3005. WATERS OF THE COMMONWEALTH (1951) A II 3a PaSWB
25 min.; color; also 35 mm, 10 min.
Public need for clean streams; how their pollution is abated in the State of Pennsylvania. Laws enacted; sanitary board set up; laboratory and field tests; treatment plants for control of waste. Processes involved in treatment of waste. Prevention of acid mine drainage; replanting of strip mining waste. Prevention of erosion; impounded lagoons used to control and reclaim waste from anthracite coal cleanings. Dredging of rivers.

3006. WAYS TO BETTER CONVERSATION (1950) A VI 4 CORONET
10 min.; also color.*
Conversations of two groups of young people contrasted; elements of successful conversation; skills of conversationalist.

3007. WAYS TO GOOD HABITS (1949) A VI 2
10 min.; also color.* CORONET
Young children learn to tell difference between habits which lead to good results and those which lead to poor results.

3008. WAYS TO SETTLE DISPUTES (1950) A VI 4 CORONET
10 min.; also color.*
Children illustrate four methods of settling disputes: compromise, obedience to rules, finding facts, finding opinions.

3009. WE DISCOVER FRACTIONS (1947) C VII 1 CORONET
10 min.; also color.*
Piece of pie, half an apple, board sawed into fourths for shelves, two-thirds of cup of milk for layer cake present fractions in familiar terms that clarify meaning of such words as numerator and denominator, so laying foundation for understanding fractions.

3010. WE DISCOVER THE DICTIONARY (1946) A IV 5 CORONET
10 min.; also color.
Story of children appointed to write letter on behalf of their class at school, illustrates how pupils should use dictionaries; kinds of dictionaries, abridged, unabridged; use of guide-words at top of pages; diacritical marks, syllables, accents, etc. explained. Dictionary as learning tool, reflection of accepted language patterns rather than as final authority.

3011. WE DRIVERS (1950) A II 7 d
13 min.; color.** GenM
Proper safe-driving techniques, including driving on ice and snow, in fog, at night.

3012. WE GO TO SCHOOL (1948) A I 1
10 min.; also color.* CORONET
What young child may expect from school; what school expects from him; importance of school rules, intended to help child entering to visualize concept of school community when he first becomes part of it; to give him sense of security and of belonging to new environment.

3013. WE MAKE A FIRE √(1949) C VIII
(Experiences in Science Series) InstF
10 min.*
To make fire burn, it is necessary to have something to burn, enough heat to start and keep it burning, enough air for fire. Fire a useful servant; carelessness can make fire a dangerous enemy.

3014. WE PLAN TOGETHER (1948) A IV 5
20 min.* TCCU
An eleventh grade group plans cooperatively for learning in its core class over a period of several months. But the film does more than picture a core program in operation. It presents a way of working that increases zeal and efficiency in individual and group activities. Those interested in harnessing more effectively the energies and learning capabilities of adolescents will find many helpful suggestions here.

3015. WE SEE THEM THROUGH (1948) A II 11 CB
20 min.; also 35 mm.* **
How Health Department of State of Rhode Island carries out program for treatment of children with rheumatic fever, not only through acute stage, but also through long convalescence.

3016. WE SERVE THE PUBLIC (1948) A I 5 a H&RE&BIU
70 min.; color.*
How great service industries have grown up through needs of more and more people living in cities; wide variety of work done by members of Hotel & Restaurant Employees & Bartenders International Union. Improved working conditions resulting from Union efforts.

3017. WE SPEAK AGAIN--REHABILITATION OF LARYNGECTOMIZED PATIENTS (1950) A II 6 Schall
16 min.; color.*
Step by step procedure in training of victim of cancer of larynx. Doctor's role in early establishment of patient's confidence in rehabilitation. Patient's relationship with speech therapist. Technical features of operation (diagram). Esophageal speech explained and demonstrated.

3018. WE VISIT THE SEASHORE (1949) A IX 1 YAF
10 min. *
Typical day's activities of two young children at seashore (one a visitor for first time); how they play in sand and water; various things they do and see.

3019. WEATHER, THE √ √ (1941) C VIII EBF
(General Science Series)
11 min.
Study of weather, its changes; techniques for predicting and measuring. Meteorological instruments, cycle of solar radiation, circulation of atmosphere explained. Wave cyclone traced and related to observable phenomena.

3020. WEATHER WIZARDS (1939) C VIII TFC-MGM
(Pete Smith Specialties Series)
9 min. *
Work of modern weather bureau; its importance.

3021. WEIGHING WITH THE ANALYTICAL BALANCE (1951) C VIII UMINN
15 min.; color.
Need for accurate weighing in everyday life; use of analytical balance for precision weighing which other scales can not accommodate. Beam, pointer fulcrum, pans identified. Proper care of balance. How to handle weights with forceps. Use of rider. How to find zero point on scale; rest point. Steps involved in weighing sugar: tare in the right pan, sugar in the left pan, weights being correctly applied in tare pan. Rider used to make final adjustment. Advanced types of balances in use; all based on principles of the analytical balance.

3022. WEIGHT EVENTS √ √ (1938) A V 2 EBF
11 min. *
Championship form in shot put, discus and hammer throw, javelin events. Correct beginning stance, body poise, grip, foot and leg action shown in regular and slow-motion photography. Two styles of javelin and discus throws contrasted.

3023. WEIGHT REDUCTION THROUGH DIET (1951) A III 3 NatDC
15 min.; color. **
Weight reduction study conducted at Michigan State College under supervision. Why overweight should be reduced. How a reducing diet can be made attractive, satisfying and nutritious.

3024. WELDING COMES TO THE FARM (1948) D I 3 LincEC
24 min. **
How welding can be used on the farm to repair broken parts, reclaim worn parts; build equipment. Three types of welders displayed.

3025. WELDING OPERATOR, THE (1942) A VI 5 MAHNKE
11 min. *
Oxy-acetylene equipment used by operator; flat and overhead welding and cutting. Electric resistance and arc welding presented. Spot welding, arc, including shielded arc, metal table and carbon rod methods. Typical jobs in both production and job welding explained. Knowledge and physical requirements necessary to be good welding operator. Opportunities in steel mills and automotive industries, in aircraft, building, bridge and pipe line work.

3026. WELTON (1950) A II 1 UofWash
29 min.; color. *
How people of a town suffering consequences of unsanitary conditions and poor community "housekeeping" rallied to undertake and support proper public health policy.

3027. WEST INDIES √ √ (1944) A IX 2 EBF
11 min. *
History of Caribbean region; geographical features of West Indies; natural resources, industries, people; voyages of Columbus, political development of islands, extent of commercial exchange.

3028. WESTERN GREBE (1940) C II F&WS
15 min.; color; silent. **
Life history, including spectacular courtship dance, of western grebe.

3029. WESTERN LOGGING (1948) D I 5 CateT
19 min.; color. **
How early steam and gasoline tractors were used in logging in the Northwest United States; compares early heavy equipment with wide range of equipment now available.

3030. WESTERN STOCKBUYER (1946) A IX 1 STATE
15 min.
Activities of stockbuyer in western United States; large scale sales and shipment of cattle; ranch life in Montana, scientific ranching, cowboys at work, marketing of cattle. Rodeo.

3031. WESTWARD FLOW (1948) D II SoCalG
25 min.; color. **
How the 1200 mile Texas-California gas pipeline was built.

3032. WESTWARD MOVEMENT (1941) A IX 1 EBF
11 min. *
Westward movement across the United States between 1790 and 1890; routes of migration and transportation, increase and distribution of population, extension of settlement, admission of states to the union.

3033. WHAT ARE DECIMALS? (1948) C VII 1 InstF
(Meaning of Numbers Series)
10 min. *
By use of examples from child life, component

parts of decimal fractions, names decimals require in each respective place, particular significance of position of decimal point and practical advantages of decimal system are made clear to arithmetic student. Physical significance of measurements or quantities discussed.

3034. WHAT ARE FRACTIONS? C VII 1
(1948) InstF
(Meaning of Numbers Series)
10 min. *
By use of examples from every day child experience, relationship of parts to whole, reason for writing fraction as it is written, difference between numerator and denominator, fractional parts of groups, and other concepts are developed.

3035. WHAT IS A CONTRACT? A VII
(1947) CORONET
10 min.; also color. *
Story of two youngsters dismissed from summer jobs but protected by contract illustrates purpose and nature of contract. Basic elements which identify a contract, types of contracts, the sections of a written contract, enforcement of contract, etc.

3036. WHAT IS A CORPORATION? A VII
(1948) CORONET
10 min.; also color. *
Three principal forms of business ownership: Single proprietorship, partnership, and corporation, differentiated; advantages and disadvantages of each type.

3037. WHAT IS A MAP? (1947) C V
10 min. * YAF
Small girl, writing to her friend, tries to explain what her bedroom looks like. By use of animation and special photographic techniques, concept of maps is introduced and explained, first in terms of living room plan, then in terms of map of neighborhood.

3038. WHAT IS BUSINESS? (1948) A VII
10 min.; also color. * CORONET
An overview of business, intended as an introduction to further study of characteristics of business. Role of business in modern society; complexity and interdependence of business activities. Basic functions of business illustrated in circumstances familiar to every American school child. Production, distribution, service activities differentiated. Profit as incentive. Employment provided by business.

3039. WHAT IS CLOTH? (1948) A III 2
(Textile Series, I) CORONET
10 min.; also color. *
How knowledge of materials and processes involved in cloth making, reflected in durability, appearance, etc., of finished product, assists buyer to select wisely.

3040. WHAT IS CONSCIENCE? (1952) A VI 2
11 min.; also color. * CORONET
Explanation of conscience; illustrations of its workings; how use of conscience can improve mental health.

3041. WHAT IS DISEASE? (1950) A II 1j
11 min.; color. STATE
Elementary facts about germs and microbes; how they cause sickness in humans; simple safeguards and preventive measures.

3042. WHAT IS ELECTRICITY? (1943) C VIII
20 min.; also 35 mm. WestH
Story of electricity, what it is, how man learned to produce it. Electron theory; laws of magnetism, principles of generation of electric current. Practical applications of electricity in transportation, communication, industry, medicine.

3043. WHAT IS FOUR? (1946) C VII 1
15 min. * YAF
To build in young child an understanding of the meaning of numbers, the number four is illustrated in a variety of concrete, semi-concrete and abstract situations to emphasize the significance of four. (First film in an Arithmetic Series; see Parts of Nine.)

3044. WHAT IS MONEY? (1947) A VII
10 min.; also color. * CORONET
Journey of five-dollar bill followed through many transactions. How money functions as standard of value, standard for future payment, storehouse of value, and convenient medium of exchange for goods and services. Evolution of monetary systems from days of primitive barter. How checks serve as substitute for money.

3045. WHAT IS SCIENCE? (1947) C
10 min.; also color. * CORONET
Introduction to the scientific method; curiosity, observation, hypothesis, testing hypothesis, conclusion.

3046. WHAT IS SOIL? √ (1948) C VI
(Experiences in Science Series) InstF
10 min. *
In trying to make soil in which to grow his beans a little boy learns many things about soil by observation and experiment; that soil is essential to plant growth and so to all other forms of life as well; that soil is composed mainly of eroded rock and dead organic material; that rock broken into fine particles is basic material in formation of soil; that formation of soil required millions of years and is still going on.

3047. WHAT IS SOUND? (1949) C VIII
11 min. * YAF
Elementary discussion of nature, source and transmission of sound waves.

3048. WHAT MAKES A DESERT? (1949) C VI
11 min. * YAF
Geographic and climatic factors that create a

desert explained and illustrated with particular reference to deserts of southwest United States. Prevailing winds, mountain barriers, etc., discussed. How desert land can be reclaimed by irrigation.

3049. WHAT MAKES A GOOD PARTY? (1950) A VI 4
10 min.; also color.* CORONET
Importance of parties in the lives of young people; skills of presenting successful party; duties of host and guest that contribute to success of party.

3050. WHAT MAKES DAY AND NIGHT (1946) C I
8 min.* YAF
Elementary science film on alternation of day and night as effect of earth's rotation around the sun. Facts brought out in discussion between two children and their father.

3051. WHAT MAKES RAIN (1946) C VIII
11 min.* YAF
Elementary science film. In letter to small boy weather man explains concepts of evaporation and condensation as they apply to water cycle.

3052. WHAT MAKES THINGS FLOAT?√ (1949) C VIII
10 min.* YAF
Basic principles of floating.

3053. WHAT TIME IS IT? (1951) A IV 2
11 min.; also color.* CORONET
As child prepares for forthcoming birthday party, she learns to tell time by clock and calendar.

3054. WHAT'S IN IT FOR ME? (1950) D I 2
20 min.; color.** PennSalt
Recommended procedures for handling milk on small dairy farm to insure high quality product, shown in detail.

3055. WHEAT FARMER√√ (1938) A IX 1
11 min.* EBF
Daily life and activities of midwestern wheat farmer and his family; how soil is prepared and winter wheat is planted; milking cows, repairing fences and machinery, 4-H Club meeting, hiring and feeding harvest hands, harvesting grain, transporting grain to elevator for shipment.

3056. WHEAT: THE STAFF OF LIFE (1947) D I 1
33 min.; also color.* InstF
A factual step-by-step study of all operations required to bring wheat from farm to homes of America.

Reel I--Wheat-Growing: Preparation in plowing and disking; planting and growing; reaping and threshing; delivery to grain elevators. Outstanding microphoto sequences showing germination of wheat.
Reel II--Milling: Laboratory tests, cleaning, temporing, milling, grading and packaging.
Reel III--Wheat uses for men and animals: All bakery processes for bread, cakes, cookies, etc.; making of macaroni and spaghetti; uses of wheat as food for domestic and farm animals.

3057. WHEEL SENSE (1948) A II 7d
24 min. STUD
"Torpedo Jones", professional racing car driver, shows young people of high school age how modern automobiles are built and how they should be driven in observance of traffic rules and regulations to promote safe driving and to prevent accidents.

3058. WHEN SHOULD GROWN-UPS HELP? (1951) A II 4 c
(Pre-school Incidents, No. 2) Vassar
13 min. *
Pre-school children in various situations in some of which they require help from adults; in others they manage successfully themselves. When adult help is necessary (in order that the child may succeed in a project he has undertaken). When adults should not intrude. Four scenes shown without comment. Audience to decide in which episodes children should have been helped. [Key episodes repeated, to facilitate discussion.]

3059. WHEN SHOULD GROWN-UPS STOP FIGHTS? (1952) A II 4 c
(Pre-school Incidents, No. 3) Vassar
15 min. *
Fights, quarrels, conflicts occur even in good nursery schools. Teacher must determine quickly meaning of the conflict-situation to children involved and decide whether and when to intervene. Four episodes shown, for audience discussion of issues raised. [Key episodes repeated, to facilitate discussion.]

3060. WHEN YOU ARE A PEDESTRIAN (1948) A II 7d
10 min.* PROG
Pedestrian's and motorist's responsibilities; hazards of night traffic. Correct walking habits for small children. Difficult traffic problems clarified. Pedestrian death toll.

3061. WHERE CHICK LIFE BEGINS (1937) D I 2
24 min.; color; silent. RALST
Progressive development of chick embryo from fertile ovum to chick ready for hatching; how number of hatched eggs can be increased through breeding-feeding-storage program.

3062. WHERE FOOD IS FINEST (1949) A III 3
22 min.; color. ** AmGasA
Modern installations of commercial cooking equipment for hotels and restaurants. Cooking hints for volume kitchen operators.

3063. WHERE MILEAGE BEGINS (1949) — C VIII GenM
19 min. **
What makes parts of automobile engine work; how T. N. T., dynamite and black powder compare to gasoline as fuel; what causes engine knocks; what happens when driver shifts gears. Motor assembled.

3064. WHERE NEW FLOWERS ARE BRED (1947) — D I 3 NatGar
15 min.; color; also silent. **
Breeding, cultivation, harvesting of flower seeds in southern California; advantage of climate for floriculture; irrigation, weeding, cultivation, harvesting, drying, threshing, cleaning; isolation of mutant; principle of color blending within a variety.

3065. WHITE FLOOD (1940) — C VI BF
20 min. *
Study of glaciers, origin, growth, disintegration.

3066. WHO MAKES WORDS? (1948) — A IV 5 CORONET
10 min.; also color. *
Story of school children who protest to editors of a dictionary that blackboards are no longer black or board is used to develop concept of English as dynamic language: words change in pronunciation, spelling and meaning. Words borrowed from other languages or invented to meet new requirements. Usage makes words.

3067. WHO'S BOSS? (1950) (Marriage Series) — A VI 4 McG-H.
16 min.
Competition in marriage; how in happy marriage neither is boss; both are partners.

3068. WHY BUDGET? (1950) (Home Management Series) — A III YAF
11 min. *
Importance of budget to individuals and families of all income levels discussed. What budget is; how set up in relation to needs and income; what is to be gained by following well-planned budget.

3069. WHY CAN'T JIMMY READ? (1950) — A II 4 c SyracU
15 min. *
How reading problems are diagnosed and treated in Syracuse University Reading Clinic; typical procedures used in diagnosis. Services that can be performed by reading clinic working with parents and teachers. A case history presented.

3070. WHY STUDY LATIN? (1951) — A IV 4 CORONET
11 min.; also color. *
In high school Latin class, teacher and several students explain why studying Latin is important to them; relationship of Latin to understanding of history, appreciation of literature, mastery of English; practical usefulness of Latin in number of professions.

3071. WHY WE RESPECT THE LAW (1950) — A VIII CORONET
10 min.; also color. *
Group of boys learn importance of knowing and obeying law, assisting in its enforcement, encouraging others to respect it also.

3072. WHY WILLIE WAS WILLING TO WASH (1944) (Health Series) — A II 2 NMP
10 min.; also 35 mm. *
Dirty little boy learns in dream why personal cleanliness is important: to maintain self-respect, extend social relationships, guard against disease. What dirt does to clog pores and assist in transmittal of disease germs. Value of soap and water.

3073. WILD FOWL IN SLOW MOTION (1947) — C II HL
9 min.; also color.
Slow motion study of wild fowl in flight.

3074. WILD WINGS (1946) — C II MichDC
21 1/2 min.; color. **
Fifty-six species of Michigan birds, in biological order.

3075. WILDLIFE OF THE ALEUTIAN ISLANDS (1948) — C II F&WS
15 min.; color; silent. **
Colonies of kittiwakes, auklets, murres, cormorants on rocky cliffs of Aleutian Islands. Sea otter shown. Sea lions on Bogoslof Island.

3076. WILLIAM SHAKESPEARE: BACKGROUND FOR HIS WORKS (1950) — A IV 2 CORONET
13 min.; also color. *
English scenes related to Shakespeare's works; brief episodes from Romeo and Juliet, Macbeth, Taming of the Shrew, Merchant of Venice, Hamlet. Five of his best known plays; structure of Globe Theatre.

3077. WILLIE AND THE MOUSE (1941) (Passing Parade Series) — A I 1 TFC-MGM
11 min. *
Comparative study showing that experiments with laboratory mice have implications in educational procedures in classroom; variety of approach advisable in teaching children. (Teacher training)

3078. WILSON DAM SCHOOL (1942) — A IX 1 TVA
20 min. **
Typical day in a progressive school, planned to meet physical, social and emotional needs of children.

3079. WINDOW CLEANER, THE (1949) — A IX 1 STATE
6 1/2 min.

Window cleaner working on Empire State Building; perils and thrills; worker's individualistic pride in work.

3080. WINDS AND THEIR CAUSES (1948) — C VIII CORONET
10 min.; also color. *
Crash of his model airplane introduces boy to study of winds and their causes: thermals, cumulus clouds, thunderstorms; on and off shore breezes, easterlies, westerlies.

3081. WING ASSEMBLY: THE BOW TIP √ (1944) — A VI 1 OE
(Aircraft Work--Wood Fabrication--284)
24 min. *
How to fit bow tip strip; make spar tip joint, install ribs; shape bow tip; apply and glue bow tip skins; varnish surface.

3082. WING ASSEMBLY: THE INBOARD PANEL √ (1944) — A VI 1 OE
(Aircraft Work--Wood Fabrication--300)
19 min. *
How to install subassemblies in jig, apply and glue skins; apply and remove pressure strips; finish outside surface; inspect completed assembly.

3083. WING ASSEMBLY: THE NOSE SECTION √ (1944) — A VI 1 OE
(Aircraft Work--Wood Fabrication--299)
20 min. *
How to position main spar in jig; install webbed ribs, junction rib, regular ribs, and leading edge strip; apply and glue skins; finish surface of nose section.

3084. WINGED SCOURGE (1950) — A II 1r STATE
10 min.; color.
Effects of malaria (physical, economic). Cause of malaria; protection against disease; effective medical treatment.

3085. WINTER CAMPING (1945) — A V 2 BSA
22 min. *
Techniques of cold weather camping.

3086. WINTER IN NEW YORK (1948) — A IX 1 NYSCom
29 min.; color. **
Recreation facilites offered by New York State in winter, especially winter sports; special ski technique demonstrated.

3087. WINTER ON THE FARM (1948) — D I 3 EBF
11 min.; color. *
Children observe adaptation of plants and animals to winter.

3088. WIRE (1947) — A VII BETH
45 min. **
Manufacture of wire, rod and wire products such as woven fence, barbed wire, nails, bale ties; zinc coating of wire by hot-dip galvanizing and by bethanizing.

3089. WIRE SIZES AND VOLTAGE DROP (1944) — A VI 1 OE
(Electrical Work--Wiring--372)
13 min. *
Factors influencing ability of conductors to carry electron flow; measurement of wire sizes, wire area in circular mils, voltage drop; Ohm's Law.

3090. WIRING OLD BUILDINGS WITH ARMORED CABLE √ (1944) — A VI 1 OE
(Electrical Work--Wiring--379)
22 min. *
How to install outlet boxes; cut and strip armor from cable; attach cable to outlet boxes; run armored cable; repair openings in walls; join conductors at ceiling outlet.

3091. WIRING TELLTALE PANEL (1944) — A VI 1 OE
(Shipbuilding--Marine Electricity--115)
17 min. *
Purpose of telltale units; how to strip cable; form and lace conductors on a jig; strip conductor ends and put on lugs; hook up conductors and test connections.

3092. WISCONSIN MAKES ITS LAWS (1947) — A IX 1 UWis
30 min. *
How needs for laws arise, how brought to attention of state legislature; how proposed law is discussed, introduced, referred to committees, given public hearings, engrossed, voted upon, signed or vetoed by governor, tested before supreme court. Actual photographs of legislators, committees, state officials, state offices, and state capitol building senate and assembly chambers.

3093. WISE BUYING (1950) — A VII CORONET
10 min.; also color. *
High school girl, in learning to spend clothing allowance, gets advice on principles of wise buying: knowing where, when, how, and what kind, to buy.

3094. WISE PARENTS--HEALTHY BABIES √√ (1947) — A II 1-h I. I-A. A.
11 min.; color.
How pre-and post-natal care (government clinic) of mother and child (average circumstances) safeguard health of both.

3095. WITH THESE HANDS √√ (1950) — A IX 1 IntLGW
53 min.; also 35 mm. *
Garment worker, applying for retirement pension, recalls dramatic incidents relating to struggle of his union, since 1910, to obtain and make secure the rights of workers.

3096. WITH THESE WEAPONS √√ (Revised, 1950) A II 1d AmSH
11 min.; also 35 mm.*
Paul Ehrlich, discoverer of salvarsan ("first weapon against syphilis"); formula 606. Facts about syphilis in its relation to personal, family and community health.

3097. WITHIN YOUR REACH (1946) A III 1 NYSExt
15 min.; silent.*
Effects of improperly designed storage cabinets for china and glassware; various types of up-to-date kitchen cabinets; how to build shelves, glass racks, and plate racks within easy reach of housewife.

3098. WONDER HOUSE (1950) A I 2
18 min. McG-H
Tour of American Museum of Natural History, New York City. Display techniques; traveling exhibits. Special research departments; famous expeditions; marine laboratory (Bahamas). Hayden planetarium. Printing Museum's magazines.

3099. WONDERS IN A COUNTRY STREAM (1950) C II CHU-WEX
10 min.; also color.
Inhabitants of a mountain stream; their life habits: snapping turtle, frog, salamander, caddisfly, damselfly, etc.

3100. WONDERS IN YOUR OWN BACK-YARD (1948) C II CHU-WEX
10 min.; also color.
Children playing discover a worm, a snail, a sowbug, a millipede, a spider.

3101. WONDERS OF THE SEA C II TFC-20th Cent-Fox
(Adventures of Newsreel Cameraman) (1941)
10 min.*
Great Barrier Reef in Australia; marine life; techniques of deep sea diver exploring ocean bottom equipped with cameras and other implements as part of scientific expedition.

3102. WOODS AND A WAY (1945) D I 5
30 min.; color. SoPULP
How average small farmer (in southern United States) may solve economic problems through integrated correct utilization.

3103. WOODWIND CHOIR √√(1937) E VII
11 min.* EBF
Appearance, tonal qualities, and functions of various instruments of woodwind choir: piccolos, flutes, clarinets, oboes, English horns, bassoons, and contrabassoons. Techniques of playing these woodwinds.

3104. WOODWORKER, THE (1941) A VI 5
11 min.* MAHNKE
Building industry employs thousands of men who work with wood. Furniture, mill work, pattern making establishments employ wood working craftsmen. Carpenters shown erecting scaffold, setting forms for concrete foundations and walls, constructing house from foundation through to flooring and finishing. Mill working operations portrayed; sash and door, stair building, cabinet assembly. Work in veneer and furniture factories outlined. Wood pattern-making.

3105. WOOL √√ (1947) A III 2
11 min.* EBF
Complete story of wool, from sheep through factory knitting into sweaters.

3106. WOOL - MARKETING AND MANUFACTURE (1932) A VII USDA
41 min.; silent; also 35 mm.
Handling of wool from herd to market and manufacture. Sheep-shearing in Wyoming: how fleeces are tied, packed, shipped; how graded and marketed. How wool is made into yarn; yarn woven into cloth. Uses of wool illustrated.

3107. WORD TO THE WISE, A (1940) A II 7 a NaRMIC
14 min.**
Various causes of fires in homes. Statistics on number and cost of fire losses resulting from each cause.

3108. WORK OF RIVERS √√(1935) C VI
11 min.* EBF
Running water most powerful force tending to alter earth's surface. Water cycle described, illustrated by stream table demonstration, animated drawings, natural photography. Growth of rivers, erosion cycle, rejuvenation, deposition. Oxbows, sand bars, deltas; valleys, meanders, water gaps, alluvial fans explained.

3109. WORK OF THE ATMOSPHERE √√ (1935) C VI EBF
11 min.*
Atmosphere as effective agent of earth gradation. Mechanical and chemical disintegration, their causes. Atmosphere in transportation and deposition of sand, dust; dunes and dust deposits.

3110. WORK OF THE KIDNEYS √√ (1940) C II EBF
(Human Body Series, 1)
11 min.*
Structure and function of renal system: how kidneys maintain uniformity in blood and tissues. Formation of urine, regulation of blood composition, functioning of bladder, etc.

3111. WORK SIMPLICATION APPLIED TO CLERICAL OPERATIONS (1944) A VI 5 StaReg
18 min.
How work simplification procedures applied to clerical operations can greatly reduce worker fatigue and increase production; results of time and motion studies applied to eliminating

slow, tiring body movements from: using computer to prepare timeslips, alphabetical sorting of index strips, collating, filing, check sorting, rating a production press, parts control and computing supervisors' rating of workers.

3112. WORKING WITH OTHER SUPERVISORS (1944) (Problems of Supervision - 153) 8 min.* — A VI 1 OE

Several supervisors discuss Larry, one of their colleagues, who has been unable to work harmoniously with them: What can be done about Larry?

3113. WORLD JAMBOREE (1947) 30 min.; also color. — A I 5 e BSA

Record especially of United States representation at 1947 World Jamboree.

3114. WORLD OF SOUND, THE (1941) (Cinescope Series) 10 1/2 min.* — C II TFC-Columbia

Importance of sound; effect of sound waves on human ear; operation of types of hearing devices which aid the deaf.

3115. WORLD TRADE FOR BETTER LIVING (1951) 16 min.* — B IV EBF

How international exchange of goods and services contributes to welfare of world's peoples; major features of international trade; why rising level of trade between countires is essential for higher standard of living in every country.

3116. WORLD WE WANT TO LIVE IN, THE (1942) 9 min.** — B VIII NCCJ

Intergroup relations; methods of solving problems.

3117. WOUND ROTOR CONTROLLERS (1944) (Electrical Work--Motor Control--391) 17 min.* — A VI 1 OE

Wound rotor motor principles; operation of faceplate controller, drum-type non-reversing controller; drum-type reversing controller, and automatic magnetic starter for wound rotor motor.

3118. WRITING BETTER BUSINESS LETTERS (1949) 10 min.; also color.* — A IV 3 CORONET

Clarity, brevity and courtesy as principal characteristics of good business letter.

3119. WRITING BETTER SOCIAL LETTERS (1950) 10 min.; also color.* — A IV 3 CORONET

Simple principles of letter-writing; how to write letters easily and naturally.

X

3120. X-RAY INSPECTION (1944) (Engineering--Materials Testing --173) 21 min.* — A VI 1 OE

Use of radiographs in industry, generation of X-rays in the X-ray tube, wave nature of X-rays, procedure in making radiographs, interpretation of radiographs for defects in metals.

Y

3121. YARDING LOGS (1950) 23 1/2 min.; color.* — D I 5 RARIG

Yarding operations in logging; importance of teamwork of chokers, rig slingers, and hood tenders, and of recognizing and avoiding "bites" on danger areas; safety precautions and procedures.

3122. YARN AND CLOTH CONSTRUCTION (1947) (Textile Series, III) 10 min.; also color.* — A III 2 CORONET

Processes of converting raw fibers into woven cloth demonstrated; each process analyzed (high-magnification).

3123. YAWS (PMF 5049) (1947) 14 min.; color.** — A II 1 r USArmy-P

Essential factors; causative organism geographical distribution, non-venereal status; age groups involved; predisposing factors; modes of transmission; stages and course of disease entity; pathology, treatment and prognosis.

3124. YELLOWSTONE (1950) 20 min.; color.** — A IX 1 FORD

Scenic attractions, modern tourist activity, wild life, etc., of YellowstoneNational Park: geysers in action (including Old Faithful); boiling hot springs; bubbling "paint pots;" erupting mud volcanoes; waterfalls, canyons.

3125. YELLOWSTONE - GRAND TETONS (1947) 22 min.; color. — A IX 1 PHP

Grand Canyon; Old Faithful Geyser in action. Grand Tetons National Park; Jackson Hole; Dude Ranches.

3126. YOSEMITE - END OF THE RAINBOW (1946) 11 min. (1 reel version). 22 min. (2 reel version). Also color * — A IX 1 S-M

Bridalveil Fall, Giant Sequoias, El Capitan and many other natural wonders of Yosemite National Park. Two versions available - a short and an extensive treatment of the subject.

3127. YOSEMITE NATIONAL PARK (1946-7) 11 min.; color. — A IX 1 PHP

Scenic beauties and wild life of Yosemite through cycle of the four seasons. How Merced River and glaciers carved out the U-shaped valley and-molded surrounding terrain.

3128. YOU AND YOUR BICYCLE (1948) A II 7d
10 min.* PROG
Correct bicycle riding habits. Points of safety maintenance to watch for; hazards encountered by a child going to store for mother. Correct arm signals explained; how to carry bundles; where to park; types of surfaces encountered. When and where to ride. Results of stunting, passing improperly, hitching rides, riding double, etc., illustrated. Teacher's guide included. (The film is addressed to children).

3129. YOU AND YOUR FAMILY A VI 4
(1946) Assoc
7 1/2 min.*
Some friendly commonsense solutions are offered for the everyday problems of family life presented. (Audience encouraged to continue solutions at end of film. The film does not establish conclusions.)

3130. YOU AND YOUR FRIENDS A VI 4
(1946) Assoc
7 1/2 min.*
A participation film wherein factors that make or mar friendship are illustrated at a teen age party.

3131. YOU AND YOUR JOB (1946) A VI 5
(Small Milk Plant USPHS
Operation Series)
10 min.**
Extent of milk-borne disease; how it is spread. Good milk plant housekeeping; good health and personal hygiene; clean plants and regular equipment maintenance. Processing of milk; cleaning equipment and containers, shown to be important aspects of good plant operation. Trained, responsible men essential in production of safe pasteurized milk.

3132. YOU AND YOUR PARENTS (1949) A VI 2
13 min.; also color.* CORONET
How the natural process of "growing away" from the family can lead to difficulties if parents and children do not understand each other's problems; questions of parental authority.

3133. YOU AND YOUR WORK A VI 5
(1948) CORONET
10 min.; also color.*
Relationship of attitude toward work and results of work to both employer and employee. Dignity of work and satisfaction of job well done, told in dramatized story of a shoe salesman who was discharged, re-hired, and succeeded in business.

3134. YOU BET YOUR LIFE (1948) A II 7d
10 min.* PROG
Standard (U. S. A.) driving practices explained; techniques clarified. Traffic and warning signs: their shape, and message. Highway markings; reasons for their placement. Arm signaling. Driver's responsibilities in school zones; in respect to school buses, etc.

3135. YOU CAN BE SAFE FROM A II 1 q
X-RAYS (FG 90) (1951) CDC-UWF
10 min.**
How photofluorograph unit can be operated with safety to personnel; importance of taking every precaution against exposure to X-rays in operating equipment.

3136. YOU CAN HEAR AGAIN A II 6
(1949) VETS
30 min.**
Patient's recognition and conquest of defective hearing; aural rehabilitation program.

3137. YOU CAN LICK TUBER- A II 1 d
CULOSIS (1950) VETS
20 min.**
Importance of completing prescribed treatment and rehabilitation and occupational training program (designed for tuberculosis patients).

3138. YOUR CHILD IS A GENIUS E VIII
(1947) ROBB
14 min.; color.*
Children desire to express themselves by color, line, form; recreational experience. Values of child's art, social and psychological. Children shown at work with brush, crayon, fingerpaint, clay, marking and scrawling without guidance; then with guidance but without restraint. Exhibit of their work, prepared by Brooklyn Institute Museum of Arts and Sciences.

3139. YOUR CHILD'S FIRST VISIT A II 1e6
TO THE DENTIST (1949) ADA
10 min.*
Two types of conditioning of children in respect to dental care: one, the overly protected child who fears dentist and suffers; the other, the child who regards dentist's ministrations as routine part of normal living. Child's behavior is the parents' responsibility. Patient and intelligent handling by dentist is necessary if misdirected child is to become well adjusted dental patient.

3140. YOUR DRIVING HABITS A VI 1
(1944) OE
(Automobile Operation and
Maintenance - 487)
15 min.*
Elements of good driving; how to start engine; use clutch, shift gears; use brakes; drive on curves, pavements, in mountainous country; how to drive through ice, snow, water, and mud; how to park a car.

3141. YOUR EARS (1947) C II
10 min.* YAF
Structure, function and care of human ear. How is receives sound waves and transmits them to brain. Effect of common cold on ear.

3142. YOUR ENEMY - GRASSHOPPER D I 4
(1951) USDA
23 min.; color.**
Why grasshoppers are major crop destroyers in the United States; control campaigns.

3143. YOUR EYES (1947) C II
10 min.* YAF
Structure, function and common defects of human eye. Causes and correction of near-and farsightedness.

3144. YOUR FAMILY (1948) A VI 2
10 min.; also color.* CORONET
How happy family through mutual understanding and acceptance of responsibility and cooperation has achieved sense of unity necessary to harmonious home life. Family as social unit; important role individual plays within this unit.

3145. YOUR FAMILY BUDGET (1949) A VI 4
CORONET
10 min.; also color.*
How to prepare a family budget; its value when properly planned and operated; its contribution to happy family life.

3146. YOUR FARM WORKSHOP (1950) D I 3
18 min.; color. CalTO
How preventive maintenance extends life and serviceability of farm equipment, saves money and increases production. Simple repair and maintenance procedure.

3147. YOUR FIGHT AGAINST INFANTILE PARALYSIS (1946) A I 5c
15 min.; also 35 mm.** NFIP
Purposes and work of the National Foundation for Infantile Paralysis.

3148. YOUR FRIEND, THE DOCTOR (1950) A IX 1
CORONET
10 min.; also color.*
Relation of doctor to family; why children should "be friends" with him.

3149. YOUR FUTURE IS IN TREES (1948) A VI 5
DAVEY
20 min.; color.**
Importance of trees, particularly to home surroundings. How ornamental trees are kept healthy, strong, attractive by skilled work of trained men. Selection and training of tree experts.

3150. YOUR HEALTH CENTER √ (1947) A II 3
I.I-A.A.
8 min.; color.
Varied services of a health center; their importance in relation to public health.

3151. YOUR MOVIE CAMERA AND HOW TO USE IT (1950) E IX
BAILEY
10 min.*
Fundamentals of camera work; right and wrong procedure contrasted in presentation of basic points and techniques of photography.

3152. YOUR NEIGHBOR CELEBRATES (1950) B VIII
ADL
26 min.; also color.*
Speaking to high school group, young rabbi describes and interprets five important holy days of Jewish religion. As he speaks, picture presents detailed views of the ceremonies.

3153. YOUR POSTAL SERVICE (1948) A VIII
22 min.; color.* BAILEY
Course of letter and package through all phases of postal operation, from time they are mailed until they arrive at destination: collection, sorting, stamp-cancelling, routing, pouching, loading of first class mail.

3154. YOUR POSTAL SERVICE (1949) A IX 1
18 min.* MTFF
Size and importance of postal service in United States. Its work illustrated in detail.

3155. YOUR PUBLIC HEALTH NURSE (1940) A II 1 1
NYH
10 min.; also 35 mm.**
Rural public health nursing in New York State; nurse's activities in family and community health services, under routine and emergency situations.

3156. YOUR SOIL - YOUR FUTURE √√(1947) D I 1
I.I-A.A.
8 min.; color.
Importance of soil conservation demonstrated; methods any farmer may apply (contour farming, crop rotation, forestation, etc.).

3157. YOUR TEETH (1947) A II 2
10 min.* YAF
Structure, growth and proper care of teeth. Animation used to show how baby teeth are replaced by permanent teeth. Why and how a tooth decays. Proper methods of brushing teeth demonstrated. (A one reel version of the British Information Services production.)

3158. YOUR THRIFT HABITS (1948) A VI 2
10 min.; also color.* CORONET
Thrift lesson emphasis on importance of setting up budget, careful buying, doing without extravagances, choosing between immediate and future satisfactions.

3159. YOUR VOICE (1949) E VII
11 min.* EBF
Four phases of voice production: respiration, phonation, resonance, and articulation. Vocal folds in operation. Role of proper exercises for improving voice; use of voice in speaking and singing, illustrated.

3160. YOU'RE THE DOCTOR (1950) A VI 1
29 min.** ETHYL
Detailed demonstration of a complete valve job done by a farm machinery mechanic. Tools needed; how used. Importance of following manufacturer's specifications and of constantly checking for accuracy. Engine reassembly illustrated.

3161. YOURS IS THE LAND √√(1950) D I 1
20 min.; color.* EBF
Interdependence of soil, water, forests and grasslands, and animal life. How man with tools and machinery has upset natural balance. Need for orderly management of natural resources.

3162. YOUTH FORUM (1951) A I 5e
40 min. STATE
American and foreign students participate in international youth forum sponsored by New York Herald Tribune newspaper; tour of United States, visits in American homes, schools; addresses at forum discussions by delegates.

Z

3163. ZOO (1949) C II
11 min.; color.* EBF
Visit to large modern zoo where natural habitats are simulating.

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Wonders of the Sea
Work of the Kidneys
World of Sound, The
Your Ears
Your Eyes
Zoo

C III

Blooming Desert, The
Climbing Plants
Daffodils
Flowers at Work
Fungus Plants
Gift of Green, The
Growth of Flowers, The
How Seeds Germinate
Leaves
Life Cycle of a Plant
Life of a Plant
Miracle of Trees
Movements of Some Common Plants
Nitrogen Abundance
Osmosis
Parasitic Plant, A
Photosynthesis
Plant Growth
Plant Survival
Plant Traps
Root Development
Roots of Plants
Seasonal Changes in Trees
Seed Dispersal
Seed Dispersal
Spring Blossoms
Time-Lapse Studies of Flowers

C IV

Carbon and Its Compounds
Carbon Arc Projection
Carbon-Black Treasure
Catalysis
Cellulose Decomposition in Nature
Chemistry and a Changing World
Colloids
Corrosion
Corrosion Proof
Electrochemistry
Halogens, The
Inside the Cell
Introduction to Chemistry
Langmuir on Surface Chemistry, Dr.
Magic in Agriculture
Metals and Non-Metals
Nitrogen Cycle, The
Origin and Sythesis of Plastics Materials
Oxidation and Reduction
Oxygen

Sulphur and Its Compounds
Velocity of Chemical Reactions

C V
Caught Mapping
Colorado River, The
Earth and the Sun's Rays (Distribution of Insolation)
Geography of New England
Geography of the Southern States
Geography of the Southwestern States
Glacier Park Studies
Global Concept in Maps
Great Winds (Distribution of Pressure and Winds)
Great Winds (General Circulation)
Introduction to Map Projection
Latitude and Longitude
Let's Look at Maps
Maps and Their Uses
Maps Are Fun
Our Earth
What is a Map?
Yosemite--End of the Rainbow

C VI
Birth of the Soil
Earth's Rocky Crust
Geological Work of Ice
Ground Water
Hunting Animals of the Past
Iron--Carbon Alloys
Limestone Caverns
Loads of Coal
Metal Crystals
Metal Magic
Modern Coal Mining
Mountain Building
Petroleum
Powder Metallurgy
River of Ice
Secret of the Fjord
Shell Mounds in the Tennessee Valley
Story of an Ore Sample, The
Story of Coal, The
Story of Petroleum
Volcano
Volcanoes in Action
What Is Soil?
What Makes a Desert?
White Flood
Work of Rivers
Work of the Atmosphere

C VII
Language of Mathematics

C VII 1
Decimal Fractions
Division is Easy
How to Add Fractions
How to Change Fractions
How to Divide Fractions
How to Find the Answer (Mathematical Problem Solving)
How to Multiply Fractions
How to Subtract Fractions
Introduction to Fractions
Let's Count
Meaning of Long Division
Meaning of Percentage
Measurement
Multiplication is Easy
Parts of Nine
Percentage
Subtraction is Easy
We Discover Fractions
What are Decimals?
What are Fractions?
What is Four?

C VII 3
Angles
Angles and Arcs in Circles
Areas
Chords and Tangents of Circles
Circle, The
Congruent Figures
Geometry and You
Indirect Measurement
Lines and Angles
Locus
Meaning of Pi
Polygons
Principles of Scale Drawing
Properties of Triangles
Pythagorean Theorem
Quadrilaterals
Ratio and Proportion
Rectilinear Coordinates
Similar Triangles

C VII 4
Language of Graphs, The

C VIII
ABC of Internal Combustion
ABC of the Automobile Engine, The
ABC of the Diesel Engine
Air All Around Us
Air in Action
Atmosphere and Its Circulation
Atomic Energy
Atomic Physics
Atomic Power
Basic Electricity
Basic Electronics
Basic Hydraulics
Basic Principles of the Analytical Balance
Birthplace of Icebergs
Carnot Cycle and the Kelvin Temperature Scale, The
Cathode Ray Tube--How it Works
Clouds
Clouds Above, The
Curiosity Shop
Curves of Color
Diesel Engine and the Ideal Diesel Cycle, The
Diesel, the Modern Power
Direct Current Controllers
Distributing Heat Energy
Doppler Effect
Electrodynamics
Electromagnets
Electron, The--An Introduction
Electronics at Work
Electrons
Electrons on Parade
Electrostatics
Elements of Electrical Circuits

Energy and its Transformations
Exploration with the High Temperature Microscope
Fire
Flood Weather
Flow of Electricity
Force and Motion
Force of Gravity
Friction
Fuels and Heat
Fundamentals of Acoustics
Gasoline Engine (Otto Cycle), The
Gravity
Heat Treatment of Aluminum
Heat Treatment ot Steel--Elements of Hardening
Heat Treatment of Steel--Elements of Surface Hardening
Heat Treatment of Steel--Elements of Tempering, Normalizing, and Annealing
Home Electrical Appliances
How Man Made Day
How We Get Our Power
Hurricane Circuit
Hydraulics
Ignition and Spark Plugs
Importance of Water
Introduction to Electricity
Introduction to Physics
It's Mighty Cheap Insurance
Jet Propulsion
Lenses
Light and Power
Light and Shadow
Light Control Through Polarization
Light is What You Make It
Light Waves and Their Uses
Machines Do Work
Magic of Fluorescence
Magnetism
Magnets
Making Electricity
Matter and Energy
Measurement of Electricity
Measurement of the Velocity of Light
Measurement with Light Waves
Mechanics of Liquids
Miracle Makers
Molecular Theory of Matter
Musical Notes
Mysteries of Water, The
Nature of Color, The
Nature of Energy, The
Nature of Light, The
Nature of Sound, The
Nothing But Air
Oil Films in Action
On the Level
Our Common Fuels
Plastics
Power
Power by Which we Live
Primary Cell
Principles of Electricity
Principles of Refrigeration, The
Principles of the Generator
Problems of Flight
Properties of Water
Quicker'n a Wink
Radio-Frequency Heating
Radioisotope, The
Refraction
Riding the Film
Romance of Radium, The
Sailplane
Seeing the Unseen
Series and Parallel Circuits
Shadows and Eclipses (Reflection)
Simple Machines
Solids, Liquids, Gases
Sound Waves
Sound Waves and Their Sources
Sounds of Music
Spherical Mirrors
Story of a Storm, A
Story of Electricity, The
Story of the Spark Plug
Theory of Flight
Theory of Operation of the Four Pole Magneto
Thermodynamics
Thermometer, The
Things Expand When Heated
Uniform Circular Motion
Use of the Microscope
Vacuum Tubes
Water Cycle
Water in the Air
Water Power
Water Supply
Water Works for Us
We Make a Fire
Weather, The
Weather Wizards
Weighing with the Analytical Balance
What is Electricity?
What is Sound?
What Makes Rain
What Makes Things Float?
Where Mileage Begins
Winds and Their Causes
Work of the Atmosphere

D I 1

Acres of Gold
Apples
Apples
Arch Against the Sky
Better Farms for a Greater Georgia
Breeding Better Food Crops
Broadbase Terracing
Building Good Terraces
By Land We Live
Conveying and Measuring Irrigation Water
Corn Farmer
Corralling the Colorado
Crystal of Energy
Dirt Cheap
Easier Ways to Make Hay
Erosion
Farm Seed Story, The
Forgotten Victory
Grain that Built a Hemisphere

Grass Down Field Waterways
Green Gold of the Salinas Valley
Green Hay
Harvesting Seeds of Plenty
Harvests for Tomorrow
Indian Gardens in Oklahoma
Irrigation--A Brief Outline
Irrigation Farming
Irrigation in Nebraska
It's More than Hay
Killing Weeds with 2, 4-D
King Cotton
King of the Fibres
Land Must Eat, The
Level Farming
Living Rock
MacDuffie's Hay Blower in Action
Maple Sap to Maple Syrup
Men Who Grow Cotton
Miracle of Hydro
More Corn for Alabama
Neighbors of the Land
Orange Grower
Orchard Irrigation
Our Soil Resources
Permanent Agriculture
Picking Hops
Picking Strawberries
Picking Tomatoes for Canning
Planning to Prosper
Pointers for Potato Pickers
Power for Protection
Preparing to Irrigate
Rebirth of the Good Earth
River People, The
Science and Agriculture (The Soybean)
Science in the Corn Rows
Seeds of Destruction
Soil and Water Conservation
Soybean Story, The
Soybeans--The Feature Story
Spring Mechanization and Weed Control in Sugar Beets
Spring Mechanization (Sugar Beets)
Story of Sugar Beets, The
Strand Breaks, A
Stands Grow, The
Suggestions for Bean Pickers
Suggestions for Tomato Pickers
There's a Job to be Done
This is Our Land
This Vital Earth
Tobacco Belt, Southern United States
Tomato Plant Growing
TVA
Twelve Months Green
Under Summer Skies
Under Western Skies
Versatile Soybean, The
Water
Water for a Nation
Water for the City
Water in the West
Water on the Land
Wheat: The Staff of Life
Your Soil--Your Future
Yours is the Land

D I 2

Acres of Chix
All Flesh is Grass
Animals of the Farm
Better Farming--More Milk
Brooding Chickens in Permanent Brooder Houses
Building a Pond
Cattle Drive: A Day on a Western Range
Dairy Farm
Day at the Fair
Double Ringer
Eggs
Extra Feeding Pays
Farm Animals
Feathering the Nest
Feeding Farm Animals
Functional Anatomy: The Reproductive Tract of a Cow
Goat Farm Dairy, The
Good Egg, The
Grass is Gold
Grasslands Farming
Growth of a Nation, The
Handling Livestock for Market
Hen Makes an Egg for the Table, A
Holstein Heritage
Horse Gaits
Horse Raising
Horses Can Take It
Horseshoeing
How to Caponize
Hy-Line Farm Parade
Improving Chickens by Crossing Inbred Lines
It's Teamwork
John Martin and Son
Judging Percherons
Know the Eggs You Buy
Labor Saving on Your Dairy Farm
Let's Visit a Poultry Farm
Man Made Miracles
Market Wise
Milk
Milk
Milk--For Goodness Sake
Milk Parade
Milk Processing
Miracle of the Meadows
Modern Milk Marketing
Morning Star
Our Foster Mother, the Cow
Pigtales
Poultry on the Farm
Problem of Bacteria in Milk
Producing Quality Milk
Range Rearing and Brooding Chickens In New York State
Royalty of the Range
Sanitary Milk Production on the Farm
Science of Milk Production
Selecting Hens for Egg Production
Shearing the Farm Flock
Sheep Shearing
Shop Shearing
Steps Take Time in Feeding Hens

Steps Take Time in Gathering and Packing Eggs
Steps Take Time in Watering Hens
Today's Chicks
Today's Horse Farm--Sunrise to Sunset
What's in it for Me?
Where Chick Life Begins

D I 3
Autumn on the Farm
Better Eating
Bill Garman, 12-Year Old Business Man
Blue Ribbon
Brighter Look, The
Care of a Tractor
Citrus on Parade
Cotton
Cotton--Picking and Ginning
Cotton Planting
Date
Date Culture in the United States
Electrified Farming
Farm Sewage Disposal System
Farm to Kitchen With a Market Basket
Farm Work Simplification
Farmer Does the Job, The
Farmers Working Together
Farming Takes Skill
Farming to Stay
From Small Beginnings
Garden for Abundance
Gardening
Golden Harvest
Growing a Flower Garden From Seed
How to Grow Dahlias
How to Grow Gladiolas
How to Grow Iris
How to Grow Roses
Just a Farmer
Livestock Cooperatives in Action
Merchandising Fresh Fruits and Vegetables
Modern Power Farming
Money in the Bank
More Money from Wool
Mules to Motors
Must It Rust?
My Neighbors and I
New Ways in Farming
Old MacDonald Had a Farm
Pathway to Progress
Picking Pointers for Apple Pickers
Reconditioning a Cultivator
Reconditioning A Grain Drill
Reconditioning A Mower
Reconditioning A Two-Bottom Tractor Plow
Romance of the Reaper
Seed Certification in Nebraska
Shep--The Farm Dog
Spring on the Farm
Step-saving Kitchen
Teen-age Farm Hand, A
Telephone And The Farmer
This Little Pig Went to Market
Transplanting Shrubs, Evergreens, and Trees
Truck Farmer
Welding Comes to the Farm
Where New Flowers are Bred
Winter on the Farm
Your Farm Workshop

D I 4
Corn Borer, The
Habits and Characteristics of the Norway Rat
Habits and Characteristics of the Roof Rat
Insect Enemies
Japanese Beetle, The
Red Banded Leaf Roller
Residual Spraying
Rural Rat Control
Stem Rust
Termite Control
Triple Threat of Brucellosis, The
Your Enemy--Grasshopper

D I 5
Arteries of Life
Birth of a Southern Pine
Conservation of Natural Resources
Destructive Invader, A
Easier Way of Logging
Extra Forest Dollars
Falling Timber
Fire Call
Fire in the Forest
Fire Weather
Forest Conservation
Forest Grows
Forest Produces
Forestry and Forests Industries
Forests and Conservation
Future Forest in the Making, A
Greatest Good, The
King of the Soft Woods
Living Forest, The
Lonnie's New Crop
New Dawn in an Ancient Forest, A
On the Trail of Pilot Rock Pine
One Match Can Do It
Our White Pine Heritage
Redwood Saga
Return of the Pines
River Run
Science and Wood Utilization
Scout in the Forest, The
Snow Ranger
Suwanee Pine
Then it Happened
Timber Growing Today
Timber Harvest
Tree Grows for Christmas
Use of Forests
Western Logging
Woods and a Way
Yarding Logs

D II
According to Plan
As the Crow Flies
Auxiliary Views
Auxiliary Views: Double Auxiliaries
Auxiliary Views: Single Auxiliaries
Builders of the Broad Highway

Building a Better World
Building a Highway
Building the Golden Gate Bridge
Construction of a 138 KV Underground Transmission Line
Copper-Mining and Smelting
Designing Machinery for Arc Welding
Diode, The
Drawings and the Shop, The
Exploring with the Micro Timer
Fontana Dam
Gas for Home and Industry
Highway Soil Engineering
Introduction to Vectors, An--Coplanar Concurrent Forces
Kentucky Dam
Language of Drawing
Leveling for Topographic Mapping
Loads on Underground Conduits
Men Against Rock
Nation's Building Stone, The
On These Foundations
Orthographic Projection
Pipeline Licks the Weather, A
Principles of Gearing
Principles of Lubrication
Principles of Moments
Principles of Refrigeration
Sections and Coventions
Selection of Dimensions
Slide Rule, The
Slide Rule, The
Tension Testing
This is Resistance Welding
Thirty-Four Inch
Topographic Mapping by Photogrammetric Methods
Triode, The: Amplification
Turning Research into Power
Water for Millions
Westward Flow

D III
Basic Net Mending
Better Fish in Michigan
Better Pond Fishing
Double Your Money from Traps
Fishing for a Living
Fishing is Their Business
Fur Trade
Indian Forests of Southwest
Oyster and Virginia, The
Ozarks Float, An
Pacific Halibut Fishing
Production and Processing of Oysters
Salmon Story
Shell Fishing
Sockeye Salmon Story
Tuna Packing

E I
Architecture West
Indian House, The
Jefferson the Architect
Medieval Architecture

E II
American Square Dance
At Land
Dance
Desperate Heart
Moor's Pavane, The
Promenade All
Satin Slippers
Social Dancing
Study in Choreography for Camera

E III
Acting Problems
Building a Set
Color and Light
Designing a Set
Directing Techniques
Four Ways to Drama
Make-up for Boys
Make-up for Girls
Make-up for the Theatre
Making Theatrical Wigs
Managing a Play
Mark Twain and Tom Sawyer
One Way to Build a Flat

E IV
Drawing with Pencil
Elements of Design: Line
Flower Arrangements for the Home
French Tapestries Visit America
Perspective Drawing
Understanding Children's Drawing

E V
Better Run for Your Money, A
Heights and Depths
How to Make a Good Impression
Lynd Ward at Work
Make a Linoleum Block
Make an Etching

E VI
Faith in our Future
How to Plant A Small Shade Tree
Life Stream of the City

E VII
Arturo Toscanini
Brass Choir
Design to Music
Introduction to Jazz
Mozart and Barrios on Six Strings
Music in America
Musical Instruments: The Strings
Percussion Group
Rhythm in Music
Rhythm Instruments and Movements
Rhythm is Everywhere
String Choir
Symphony Orchestra
Tall Tales
Tanglewood Story
To Hear Your Banjo Play
Vocal Music
Voice of a Choir
Woodwind Choir
Your Voice

E VIII
Art in Haiti
Brush in Action
Brush Techniques (The Language of Watercolor)
Care of Art Materials
Color Keying in Art and Living
Creation of a Portrait

Creative Design in Painting
Finger Painting
Franklin Watkins
Grandma Moses
Let's Paint with Water Color
Making of a Mural
National Gallery of Art
Painting an Abstraction
Painting Reflections in Water
Sittin' Pretty
Your Child is a Genius

E IX

Family Album
March of the Movies
Photographer, The
Time-Lapse Photography
Your Movie Camera and How to Use It

E X

Anatomical Models
Clay in Action
Glaze Application
Handwrought Silver
Henry Moore
Living Silver
Make a Mobile
Making a Bronze Statue
Paintings and Plastics
Plastic Art
Sculpture from Life
Simple Ceramics
Simple Slab Methods
Stacking and Firing
This Gracious Heritage
Throwing
Throwing on the Wheel

UNITED STATES FILMSTRIPS

(Available and Evaluated as Suitable for Use Abroad)

Listed Alphabetically by Title

[Please study Important Notice, page xvi]

Filmstrips Related to Films

Many of the films described in preceding pages of this catalogue have related filmstrips. Such filmstrips are indicated by the check mark √ immediately after the title of the film, and have not been listed among the following.

A

3164. ABBIE SWARTZ (Conflicting Orders on Rules Enforcement) (1949) (Human Relations in Supervision (Case Problems) Series) Sound; 3 min. — A VI 1 McG-H

Abbie, a supervisor, checks with plant personnel manager after two of his men are caught violating no smoking rules. He is advised that plant rules call for suspension for three days, but notifies men who protest; union steward agrees to penalty. Next day, assistant plant manager tells Abbie that union president has protested penalty because frequent violations of rule go unpunished; he suggests that Abbie get the men back on job immediately.

3165. ABOUT PEOPLE (1948) 63 frames; color. — B VIII ADL

How people world over live, play, work, worship. How people migrated long ago from place to place; evolved into various races of mankind. Why different people have different languages, manners; why nevertheless people are essentially alike. How America grew with aid of many different kinds of people, with many different ways of doing things. Why these differences are good. How friends are chosen.

3166. ACCOUNTING CYCLE, THE (1949) (Accounting Series) 40 frames. — A VI 3 McG-H

Review of major accounting operations of a business; overall picture of the cyclical nature of these operations in typical accounting system. Illustrated by small, owner-operated mercantile establishment which has in its accounting system five journals and one ledger.

3167. ACID AND BASIC SOLUTIONS (1949) (Chemistry Series) 43 frames. — C IV McG-H

Acids shown to have distinct physical and chemical properties. Ionization of acids in water solutions. Alkaline characteristics of aqueous solutions of metallic hydroxides. Neutralization of acid and basic solutions. Meaning and practical uses of pH scale of measuring acidity of alkalinity.

3168. ADAPTATIONS OF BIRDS (1946) (Basic Bird Study) 64 frames. — C II JamH

Different beaks, feet, wings; their uses.

3169. ADDITION AND SUBTRACTION (1943) (Light on Mathematics--Arithmetic) 30 frames. — C VII 1 JamH

Scope of addition and subtraction. Decimal points. Carry-overs. Unit borrowing. Anticipation of results. Simple computing methods. Checks for accuracy.

3170. ADDITION AND SUBTRACTION IN GEOMETRY (1943) (Light on Mathematics--Geometry) 56 frames. — C VII 3 JamH

Relating geometry to basic arithmetic. Ingenuity vs. memory. Fundamentals from which theorems are developed.

3171. ADDITION AND SUBTRACTION OF FRACTIONS (1943) (Light on Mathematics--Arithmetic) 47 frames. — C VII 1 JamH

Making fractions behave. Unlike units and like units. Common denominators; their usefulness. How mixed numbers act. Short cuts. Anticipation of results.

3172. ADJUSTING THE BOOKS (1949) (Accounting Series) 106 frames. — A VI 3 McG-H

Part I: Modifying accounts at end of fiscal period; procedure described. Adjustments made by journal entries; at year's end posted to ledger; adjusted trial balance as basis to prepare financial statements. Typical year-end adjustments for supply accounts, merchandise inventory accounts, fixed assets accounts. Valuation reserve accounts explained. Model adjustment entries.

Part II: Why and how adjustments are made to provide for possible losses on bad debts. Meaning of accruals payable and receivable, deferred charges and credits. Adjustments necessary so that income and expense figures

for period will be correct on statements. Model adjustment entries.

3173. ADJUSTING VALVES (1942) A VI 1
(Aircraft Engine Mechanics Series) JamH
35 frames.
Importance of checking valve clearance. Preparing engine for valve adjustment. Adjusting valve on number one cylinder. Checking with feeler gauge and setting valve at correct clearance. Checking of other valve mechanisms. Adjusting remaining valves.

3174. ADJUSTMENT OF HYDRAULIC BRAKES (1942) A VI 1
(Aircraft Mechanics Series) JamH
69 frames
How to adjust three standard types of airplane brakes: Bendix two-shoe expanding type, Hayes expander-tube type, Goodyear multiple-disc clutch type. Where to check for faulty hydraulic system. Fitting leaks. Methods of bleeding and pumping up Hayes-type system. Adjustment and sets of bell cranks. Bleeding and filling Goodyear multiple disc clutch brake. Adjusting eccentric or star. How to keep rudder bar clear of brake pedals.

3175. ADJUSTMENT OF MECHANICAL BRAKES (1942) A VI 1
(Aircraft Mechanics Series) JamH
41 frames.
Procedure for checking mechanical brake adjustments, brake pedal operation, cable and rod adjustments, and bell crank setting. How to free brake lines. Testing and checking hook-up. Setting shoes by adjusting eccentric or star. How to keep rudder bar clear of brake pedals.

3176. ADMINISTRATIVE JOB, THE (1947) A I 5 e
58 frames; color. (10) GScout
How Girl Scout council operates; council chartering, local council operation, relationship with national organization.

3177. ADVANCED PROJECTION CONTROL (1951) E IX
(Photographic Darkroom Procedures, Series II) McG-H
50 frames.
Techniques of improving pictures during projection by distortion control, vignetting and diffusion.

3178. ADVENTURE IN ELECTRONICS, AN (1946) C VIII
36 frames; color.** GE
Essential principles of electronics explained in Donald Duck's adventures with electrons.

3179. ADVENTURE OF PETE AND HIS DOG, THE (1950) A IV 2
(Animal Stories Series) JamH
27 frames; color.
Terry, a large puppy, not appreciated by his owner's mother; but when the small boy runs away Terry becomes a hero.

3180. AESOP'S FABLES (No. 3) A IV 2
(1951) CurrF
225 frames; color.
Nine fables, as follows: (26) The Mean Old Elephant; (27) The Lion and the Goat; (28) The Silly Rabbit; (29) The Wolf in Sheep's Clothing; (30) The Loud-Mouthed Frog; (31) The Greedy Dog; (32) The Evil Spider; (33) The Mouse Who Boasted; (34) The Foolish Donkey. For young children.

3181. AFTER SCHOOL ACTIVITIES FOR BOYS AND GIRLS (1952) A I 1
50 frames. ACE
Scope and nature of leisure-time activities provided for young people by public and private agencies in typical small city in the United States.

3182. AFTER SCHOOL HOURS (1946) A VI 2
(A Day with Bobby and Ellen Series) POP
36 frames.
Playing in safe places; avoiding colds. Courtesy to playmates. Putting outdoor clothes away. Working before dinner.

3183. AGE OF EXPLORATION (1950) A IX 2
50 frames; color. LIFE
Voyages of discovery in fifteenth and sixteenth centuries, documented by illustrations of historical and artistic interest.

3184. AGRICULTURE, FISHERY, FORESTRY (1942) A VI 5
56 frames. MAHNKE
Non-professional jobs open in agriculture, fisheries, forestry: in dairying, poultry-raising, raising of fur-bearing animals, in nurseries, and in various woodsman occupations.

3185. AID FOR INJURIES--FAINTING --BURNS (1945) A II 5
(Wood Shop--Basic Shop Safety) JamH
94 frames.
First aid for cuts, slivers, puncture wounds, bruises. Particles in eye. Chemicals in eye. Fainting. Burns and chemical burns.

3186. AIR PILOTAGE (1942) A VI 5
(Aircraft Mechanics Series) JamH
76 frames.
Factors which make good pilot. Map study. Regional charts. Topographical features. Water, culture and relief. Landmarks. Power lines and towers. Chart study. Explanation of contour lines. Airport markings and beacon lights. Reserve areas. Planning flight. Checking ground speed. Checking gasoline supply. Safety factors.

3187. AIR TRANSPORTATION, FREIGHT (1947) (Transportation Series) 60 frames. B V 3 SVE

Services rendered by air lines in transportation of freight.

3188. AIR TRANSPORTATION, PASSENGER (1947) (Transportation Series) 68 frames. B V 3 SVE

Services of airlines to passengers.

3189. AIRCRAFT NOMENCLATURE (1942) (Aircraft Mechanics Series) 183 frames. A VI 1 JamH

Part I: Airplanes grouped according to type of wings, engine, propeller, landing gear, fuselage, empennage and purpose.
Part II: Detail parts of control surfaces, including wings, flaps, ailerons, rudder, elevators, fin and horizontal stabilizer. Shows types of spars and ribs and how they are braced. How control surfaces operate and their effect on airplane in flight. Use of aerodynamic balance in hinge and horn attachments.
Part III: Names, locations and purposes of various parts of seaplane floats and flying boat hulls. Position of steps and bulkheads. Cross section diagrams to show details of structure. Use of wing-tip floats and sea wings on flying boats.
Part IV: Names and purposes of cockpit instruments, cockpit controls of airfoil surfaces, engine fuel and lubrication, fire extinguishers.

3190. AIRCRAFT TIRES (1942) (Aircraft Mechanics Series) 92 frames. A VI 1 JamH

Description of three types of tires: high pressure, medium pressure and low pressure. Description of tires: plain, cactus-proof, and safety types. Inflation do's and don'ts. Casing do's and don'ts. Danger to tires of too much heat, cleaning with gasoline, with brake fluid, or allowing grease to remain on tire. Inspection procedure and what to look for every thirty hours.
Part II: Demounting, repairing and remounting tires. Demounting from drop center rim and air wheel. Inspecting tubes. Cold patch and vulcanizing repairs. Inspecting casing. Remounting procedure. Cleaning off rim and wheel. Remounting tire without straining structure of tire or tube. Proper inflation procedure. Testing.

3191. AIRPLANE ENGINE, THE (1942) (Aircraft Engine Mechanics Series) 52 frames. A VI 1 JamH

Principle of gasoline engine. Function of pistons, connecting rods, crankshaft. Strokes of piston in fourstroke-cycle engine. Valves, camshaft, valve-timing.

3192. AIRPLANE IGNITION (1942) (Aircraft Engine Mechanics Series) 59 frames. A VI 1 JamH

Function of ignition system in gasoline engine. Parts of system and purpose of each part: magneto, ignition coil, condenser, distributor, breaker points, spark plugs.

3193. AL MILLER (Practical Joker) (1949) (Human Relations in Supervision (Case Problems) Series) Sound: 3 min. A VI 1 McG-H

Al, a good worker with company over 10 years, plays jokes. Warned by his supervisor and men. He nevertheless drops lighted cigarette into crown of fellow-worker's hat; fight ensues; supervisor has to come in to investigate and restore order.

3194. ALICE, JANE AND AGNES (Work Assignments) (1949) (Human Relations in Supervision (Case Problems) Series) Sound; 3 min. A VI 1 McG-H

Three girls working at separate stations of finishing and packing operation on incentive rate, find work monotonous; feel that one station is more desirable; are permitted to rotate around three stations. Industrial engineer notices that two show special ability on certain stations, recommends that each girl work exclusively at what she is best suited; both their production and earnings would be increased. Supervisor consults girls; they ask to continue rotation.

3195. ALTERNATING CURRENT (1941) (Basic Electricity Series) 90 frames. C VIII JamH

Inductance, capacitance and impedance in circuit. Transformers and rectifiers.

3196. ALTERNATION OF GENERATIONS IN PLANTS (1947) (General Biology Series) 52 frames. C II Macmil

Three stages in evolution of alternation of generations; life cycles of fern, Selaginella, and flowering plant as examples of homospory, primitive heterospory, and culmination of heterospory, respectively; meiosis; significance of nuclear cycle in alternation of generations.

3197. AMERICAN FARM HOME LIFE (No. 669) (1946) 62 frames. D I 3 USDA

Modern home life on the farm as found in the United States.

3198. AMERICAN INDIAN LIFE (No. 19) (1951) 225 frames; color. A IX 2 CurrF

Nine strips showing comparisons and contrasts

in ways of life of American Indians in various parts of the United States, differing ways of life in differing surroundings, as follows: (155) Indian Houses; (156) Indian Food; (157) Indian Clothing; (158) Indian Crafts; (159) Indian Decoration; (160) Indian Ceremonies; (161) Indian Games; (162) Indian Transportation; (163) Indian Communication. For young children.

3199. AMERICAN REVOLUTION, THE (1950) — A IX 1 LIFE
62 frames; color.
Story of the American Revolution, from earliest protests against Britain's colonial policy to inauguration of first president, Washington (presenting contemporary prints, engravings, original documents).

3200. ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS (1949) — A VI 3 McG-H
(Accounting Series)
54 frames.
Kinds of information about a company's financial condition of particular value to creditors, investors, employees, owners, and managers of the company; how this information can be obtained from analysis of company's financial statements. Summary of seven important methods of financial statements analysis and interpretation.

3201. ANALYTIC GEOMETRY (1943) — C VII 3 JamH
(Light on Mathematics--Graphs)
44 frames.
Quadratic equations. Writing equation for easy graphing. Drawing board methods in graphing.

3202. ANATOMY OF THE HONEYBEE, THE (No. 151) (1939) — D I 2 USDA
33 frames.
Detail structures of the parts of worker, queen, and drone.

3203. ANGULAR MEASUREMENT (1943) — C VII 3 JamH
(Light on Mathematics--Geometry)
76 frames.
Relation of angles to arcs. Degrees, radians, mils, functions.

3204. ANIMAL ENVIRONMENTS (No. 56) (1951) — C II CurrF
200 frames; color.
Eight strips on range of adaptations for locomotion, food-getting, breathing and protection, coloration, etc., that enables animals to live in different environments, as follows: (444) How Animals Live in the Artic; (445) How Animals Live in the Air; (446) How Animals Live in the Desert; (447) How Animals Live in the Forest; (448) How Animals Live in Fresh Water; (449) How Animals Live in the Grasslands; (450) How Animals Live in the Sea; (451) How Animals Live in Swamps.

3205. ANIMAL HOMES (No. 60) (1951) — C II CurrF
150 Frames; color.
Six strips on ways in which animals (mostly North American) build or find their homes, as follows: (474) Nests; (475) Caves; (476) Burrows; (477) Hollow Trees; (478) Lodges; (479) Insect Communities.

3206. ANIMAL HOMES (1946) — C II POP
(On the Farm with Tom and Susan Series)
36 frames.
Different kinds of animal homes underground, in water, in trees, etc. Animals which carry their homes with them. How man provides shelter for domesticated creatures. Why children should be careful not to destroy homes of wild creatures in parks and woods.

3207. ANIMAL LIFE (No. 9) (1951) — C II CurrF
225 Frames; color.
Nine strips on different forms of animal life, (stressing familiar mamals), as follows: (68) Mamals of North America; (69) Looking for Animals; (70) Fish; (71) Reptiles; (72) Snakes; (73) Birds; (74) Cats; (75) Rabbits; (76) Cows. For young children.

3208. ANIMAL PROTECTION (No. 61) (1951) — C II CurrF
125 frames; color.
Five strips on how animals are protected from the elements and from their enemies; how animals make use of protective coloring in various environments, as follows: (480) Body Covering; (481) Protective Coloring: (482) Using Protective Coloring; (483) Protective Weapons; (484) Protective Behavior.

3209. ANIMALS AND SEASONS (No. 66) (1951) — C II CurrF
150 frames; color.
Six strips on animal adjustment to winter cold hibernation and summer heat ("summer sleep"); migration; body changes; as follows: (517) Air Migration; (518) Land and Water Migration; (519) Hibernation; (520) Adjustment to Summer; (521)Seasonal Body Changes; (522) Seasonal Habits.

3210. ANIMALS AND THEIR YOUNG (1946) — C II POP
(On the Farm with Tom and Susan Series)
35 frames.
Animals born alive; animals that develop from eggs. Animals that resemble parents when born; other that do not. Young animals need parents' care. Things all animals require for life and growth.

3211. ANIMALS OF THE FOREST (1947) — C II CAS
(Animal Series)
42, 35 frames; sepia.

Part I: A picture-story of Golden Fawn, the deer; Hippety Hop, the rabbit; Billy Beaver, who cuts down trees with his teeth, and builds dams; Blackie Bear and his family; Frisky Squirrel; Red Fox and his two-door den; Gus the Gopher, his weak eyes and strong muscles.
Part II: Golden Fawn and opossum, who "plays dead"; Sammy Skunk; Porky, the porcupine; Chippy Chipmunk; Slindy, the mink; Patches Raccoon, who washes all his food before eating; Golden Fawn's relative, the Moose; the badger with the bad disposition; Inky, the Bat; and Felix Field Mouse.

3212. ANIMALS OF THE FRIENDLY FOREST (No. 47) (1951) C II CurrF
175 frames; color.
Seven strips on habits, characteristics, ways of life of woodland animals, as follows: (378) Billy Beaver; (379) Glider the Flying Squirrel; (380) Jimmy Raccoon; (381) Melvin Otter; (382) Needles Porcupine; (383) Rudy and Trudy Bear; (384) Woody Woodpecker.
For young children.

3213. APPLICATIONS (1941) C VIII JamH
(Basic Electricity Series)
116 frames.
Part I. Heating and lighting.
Part II. Solenoids, motor uses, radio, electroplating.

3214. APPLICATIONS OF ELECTRO-MAGNETISM (1952) C VIII McG-H
(Automotive Mechanics, Set I)
45 frames.
How behavior of wire carrying current in magnetic field can be used to measure electricity. Ammeter, voltmeter.
Meter principles used to explain operation of electric motor. Electromagnet described. Principles of generator operation explained.

3215. ARBOR DAY (1950) A IX 1
41 frames; color.* UofNeb
How pioneer leader, J. Sterling Morton, founded Arbor Day; value of trees; suggested school activities in tree study.

3216. ARE YOUR FEET KILLING YOU? (1945) A II 7d NSC
Sound; 20 min.*
Causes of pedestrian accidents, illustrated with actual case histories.

3217. ARITHMETIC OF ALGEBRA, THE (1943) C VII 2 JamH
(Light on Mathematics--Algebra)
46 frames.
Variables and quantities visualized. Applying fundamental processes. Factoring.

3218. ARTIFICIAL RESPIRATION (1942) A II 5 JamH
(First Aid Series)
33 frames.
How to apply artificial respiration by prone pressure method.

3219. ARTIFICIAL RESPIRATION AND ITS USES (1944) A II 5 SVE
(First Aid Series)
28 frames.
Correct methods of administering artificial respiration.

3220. ARTS OF CIVILIZATION (No. 28) (1951) A IX 2 CurrF
225 frames; color.
Nine strips on how man solved his problems of food, clothing, and shelter from primitive times to present; how man progressed through using his intelligence to adapt his ways of life to his environment; continuity of progress in material things through contributions by many men in different times and lands; as follows: (219) The Story of Food; (220) The Story of Shelter; (221) The Story of Clothing; (222) The Story of Trade; (223) The Story of Money; (224) The Story of Weights and Measures; (225) The Story of Time; (226) The Story of Lighting and Heating; (227) The Story of Machines.

3221. AT HOME IN THE EVENING (1946) A VI 2 POP
(A Day with Bobby and Ellen Series)
36 frames.
Father comes home from work. Children help mother with dinner and after dinner. Rest and quiet play after dinner. Good light for reading. Toys put away as bedtime arrives.

3222. ATMOSPHERIC PRESSURE (1946) C VIII JamH
(Air Age Physics--Fluids)
71 frames.
Air takes up space and has weight; exerts pressure because of its weight. Demonstrations of atmospheric pressure. Why liquids rise in an exhausted tube. Applications. Computing atmospheric pressure from height of mercury column.

3223. ATOM, THE (1949) C VIII LIFE
57 frames; color.
Pictorial history of man's appreciation (knowledge) of atom, its structure and behavior, from ancient times to date; how deductive reasoning established existence of atoms; has analyzed, measured and classified them.

3224. ATOMIC THEORY, THE (1949) C VIII McG-H
(Chemistry Series)
45 frames.
Reasoning that led to development of atomic theory. How theory helps explain laws of definite proportions, multiple proportions, and other chemical relationships. Meaning of atomic weights. Method of finding atomic weight of element in gaseous compound.

3225. ATTENTIVENESS (1946) A VI 1
(Behind the Counter, No. 2) JamH
Sound: 10 min.
How salesperson may be attentive to customer and make customer feel it; how attentiveness assures customer's satisfaction and cements customer relations.

3226. AUTOMOTIVE CIRCUITS (1951) C VIII
Sound; 11 min. SunEC
Path of electrical energy in simple circuit; factors affecting amperes, voltage, resistance; principles of magnetism as it applies to component parts of automotive electrical system; voltage and current sensitive coils.

B

3227. BACK-YARD VEGETABLE GARDEN, A (No. 657) (1945) D 1 3 USDA
60 frames.
Growing vegetables in thirty by fifty-foot plot in back yard of small suburban home. Selecting site; planning garden; spading and preparing ground; planting, thinning, staking tomatoes and beans; cultivating, irrigating, and succession cropping. Making compost.

3228. BACTERIA--GOOD AND BAD (1946) A II 1c YAF
(Good Health Series)
42 frames.
Different kinds of bacteria, some helpful, some harmful; how harmful types are spread and what precautions should be taken both by individual and by community to prevent spread.

3229. BAND SAW (1944) A VI 1
(Woodshop--Woodworking Tools and Machines) JamH
89 frames.
Introduction to band saw. Names and functions of parts. Safe practices for setting up band saw. Safe practices for band sawing.

3230. BANDAGING (1944) A II 5
(First Aid Series) SVE
95 frames (Parts I and II)
Different types of bandages; how applied.

3231. BANKING AND MONETARY CONTROL (1950) A VII McG-H
(Economics Series)
37 frames.
Genesis of money; formation of bank deposits; how bank money is created in Federal Reserve System. Weapons of central banking policy used by Federal Reserve to help stabilize business activity.

3232. BAROMETERS AND THE WEATHER (1946) C VIII JamH
(Air Age Physics--Fluids)
85 frames.
Toricelli's apparatus for measuring atmospheric pressure. Modern mecury barometer. Aneroid barometer. Special applications. Units of pressure. Use of barometric readings in weather forecasting.

3233. BASIC ECONOMIC CONCEPTS (1949-50) A VII McG-H
(Economics Series)
40 frames.
Chief aspects of modern capitalistic economy; nature of capital and income; division and specialization of labor; functions of money. Various forms of economic organization; fundamentals of government taxation and expenditure.

3234. BEARINGS (1941) A VI 1
(Automotive Mechanical Training Series--Mobility Factors) JamH
55 frames.
Fundamental differences in various types of ball and roller antifriction bearings.

3235. BEGINNING ARCHERY (1948) A V 2
277 frames in four units; also color; also sound. AI
Detailed instructions in sport; shooting; aiming; rules, simplified.

3236. BEGINNING BADMINTON (1950) A V 2
238 frames in six units; also color; also sound. AI
Detailed instruction in game; service and forehand strokes; backhand and overhead strokes; rules, simplified.

3237. BEGINNING BASEBALL (1949) A V 2
348 frames in seven units; also color; also sound. AI
Fundamentals of throwing, fielding, hitting, bunting, pitching, catching, baserunning (detailed instruction).

3238. BEGINNING BASKETBALL (1951) A V 2
287 frames, in seven units; also color; also sound. AI
Progressive explanation and demonstration of game of basketball; its history, playing rules, equipment, necessary skills. The game, ball handling and receiving, passing, dribbling, pivoting, shooting, defense.

3239. BEGINNING BOWLING (1949) A V 2
157 frames in three units; also color; also sound. AI
Fundamentals of delivery, aiming, scoring (Detailed instruction); explanation of equipment, safety rules and etiquette of game.

3240. BEGINNING GOLF (1948) A V 2
216 frames, in four units; also color; also sound. AI
Detailed instruction in game; grip, stance, and swing; iron shots and putting; rules simplified.

3241. BEGINNING TENNIS (1948) A V 2
281 frames in five units; also color; also sound. AI
Detailed instructions in the game; forehand drive; backhand drive; service; rules simplified.

3242. BEGINNING TUMBLING (1948) A V 2
134 frames in three units; also color; also sound. AI
Detailed instruction in individual tumbling; individual balancing; double stunts and mimetics.

3243. BEGINNING VOLLEYBALL (1951) A V 2
210 frames, in four units; also color; also sound. AI
Progressive explanation and demonstration of game of volleyball; its history, rules, equipment and skills required to play game properly. The game, passing, the set-up, attack or spike, the serve.

3244. BEHAVIOR OF ANIMALS AND PLANTS (No. 51) (1951) C II CurrF
127 frames; color.
Five strips on range of behavior that enables animals and plants to use their adaptations in struggle for survival; emphasis on how animals get food, care for their young, protect themselves; as follows: (405) How Living Things Respond; (406) Behavior of Plants; (407) Behavior of Simple Animals; (408) Animal Behavior; (409) Learned and Unlearned Behavior.

3245. BEHIND THE SMILE (Revised 1947) A II 2 DCStL.
11 min.; color.
Teaches importance of periodic dental care and daily use of essential foods in building good teeth.

3246. BELT SANDER (1944) A VI 1 JamH
(Wood Shop--Woodworking Tools and Machines)
84 frames.
Introduction to belt sander. Names and functions of parts. Changing sander for horizontal operation. Safe practices for setting up belt sander. Replacing abrasive belt. Safe practices for belt sanding.

3247. BERNOULLI'S PRINCIPLE (1946) C VIII JamH
(Air Age Physics--Fluids)
62 frames.
Simple examples of Bernoulli's principle. Explanation of relationship between fluid pressure and fluid velocity. Statement of Bernoulli's principle. Lifting effect of air on plane's wings. Other applications.

3248. BIRDS' NESTS (1946) C II JamH
(Basic Bird Study)
67 frames.
Why, where and how birds build nests; how to find nests.

3249. BIRDS--THEIR VALUE TO AGRICULTURE (No. 675) (1947) C II USDA
61 frames.
Life and habits of birds; their economic value due to their use of insects as food. Provision for protection and emergency feeding.

•3250. BIRTH OF OUR FREEDOM, THE (1947) A VIII POP
(Our American Heritage Series)
46 frames.
First groping toward democracy in Europe; development on American Atlantic seaboard in the 17th and 18th centuries.

3251. BIRTHDAY PARTY, THE (1951) A VI 4 JamH
(At Home and School with Tom and Nancy Series)
24 frames; color.
Afternoon school activities built around birthday party for a little DP.

3252. BLASTING SAFELY IN MINES (1949) A·II 7c NSC
51 frames.*
How to store explosives safely; how to use in mines.

3253. BOARD MEMBER'S JOB, THE (1948) A I 5 e GScout
57 frames; color. (8)
Duties and activities of Girl Scout board member; policy making and planning, contributions to and from community.

3254. BOB SMITH (Poor Work Habits) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Bob, a new supervisor, discovers his employees habitually violate company rules, waste time, improperly take orders from union steward. In addition, finds what he considers fraudulent methods of counting work done and pay due, and discrimination in work assignments against younger girls by older ones. Fears walk-out if he takes drastic steps to correct conditions; asks assistant plant manager what to do.

3255. BODY, THE (1942) A II 5 JamH
(First Aid Series)
43 frames.
Muscles, tendons, skin, blood, skeleton, head, trunk, upper and lower limbs.

3256. BOOKS OF ORIGINAL ENTRY (1949) A VI 3 McG-H
(Accounting Series)
60 frames.

Reasons for and procedure of recording transactions in journal. Basic items of information recorded in journal; later posted to ledger. Advantages of dividing journal into several special journals along with general journal. Posting from journals; balancing cashbook.

3257. BOY NAMED JOE, A (1946) D I 2
Sound; 20 min. AmBUT
Story of boy who attended meetings where cream quality dairying practices were discussed and persuaded his father to adopt proper methods of handling and marketing cream.

3258. BRAIN BEATS BRAWN (1945) A II 7c
(Safety Management for Foremen) NSC
Sound; 20 min.*
Best material handling practices illustrated for safety supervisors to show them what to teach workers.

3259. BRAKE AND LANDING GEAR MECHANISM (1942) A VI 1
(Aircraft Mechanics Series) JamH
107 frames.
Part I: Checking points of service on fixed landing gears. Inspecting supporting struts; shock absorber struts; inspecting and servicing brake assembly. Inspecting tires; tail wheel. Part II: Inspecting and servicing retractable landing gear mechanism. Operating mechanism explained. Checking struts and hinges; locking device; mechanical latch system; bungee assembly; oleo strut; hydraulic brakes.

3260. BRAKE DRUMS AND SHOES (1941) A VI 1
(Automotive Mechanical Training Series--Mobility Factors) JamH
77 frames.
Fundamentals of shoe and drum braking systems. Self-energizing principles. Lining. Heat dispersion.

3261. BRAKE OPERATING LINKAGE (1941) A VI 1
(Automotive Mechanical Training Series--Mobility Factors) JamH
46 frames.
Construction and operation of mechanically-operated brake from foot or hand control to shoes.

3262. BRAZING AND SILVER SOLDERING (1942) A VI 1
(Oxyacetylene Welding--Special Practice) JamH
41 frames.
Definitions. Tools, equipment and materials.

3263. BREEDS OF SHEEP (No. 141) D I 2
(1939) USDA
56 frames.
Several breeds of sheep classified on basis of fine, medium, and coarse wool, and Karakul fur.

3264. BREEDS OF SWINE (No. 44) D I 2
(1940) USDA
33 frames.
Several types and breeds of swine commonly used in producing market hogs in the United States. Lard and bacon types compared.

3265. BRUCELLOSIS OF CATTLE D I 2
(BANG'S DISEASE) USDA
(No. 632) (1942)
48 frames.
History, symptoms, causes of brucellosis; control methods (also known as infectious or contagious abortion).

3266. BRUSH, THE SQUIRREL (1950) A IV 2
(Animal Stories Series) JamH
26 frames; color.
On first day out of nest a baby squirrel teases baby birds. A fall teaches him better attention to work.

3267. BUILDING CONSTRUCTION SAFETY (1949) A II 7c
NSC
36 frames.*
Safety measures advisable in demolition and remodelling. Steel scaffolding, ladders, unguarded floor openings, concrete placement, material hoist, housekeeping, etc. Difference between expensive and dangerous operations, and fast and efficient ones. (This film is aimed directly at old superstition that each story of a building is paid for with the life of a worker).

3268. BUILDING YOUR FREE TRADE UNION (1952) A I 5a
50 frames; color. FifoW
How to organize a trade union; how to elect officers; how to secure recognition of union.

3269. BULLETIN BOARDS AT WORK (1950) A VI 3
42 frames. Wayne
Various uses to which bulletin board may be put as instructional device; effective ways of constructing and utilizing bulletin board displays in classroom.

3270. BUOYANCY AND ARCHIMEDES' PRINCIPLE (1946) C VIII
(Air Age Physics--Fluids) JamH
63 frames.
Buoyancy in liquids. Relationship between buoyancy and amount of liquid displaced. Archimedes' principle. Buoyancy in gases.

3271. BURNS (1942) A II 5
(First Aid Series) JamH
38 frames.
First aid treatment for burns and scalds.

3272. BUSINESS CYCLES AND FISCAL POLICY (1950) A VII
(Economics Series) McG-H
36 frames.

Economic characteristics of and methods of measuring business cycle; how ups and downs of business are related to investment fluctuations; how governmental action can help stabilize movements of cycle.

3273. BUSINESS FACILITIES (1951) A VI 1
(Business Etiquette Series, McG-H
Set II)
36 frames.
Facilities business offers employees (elevators, cafeteria, lounge); points of etiquette to be observed in sharing such facilities. Considerate use of office equipment.

3274. BUSY MORNING AT SCHOOL, A (1951) A I 1 JamH
(At Home and School with Tom and Nancy Series)
25 frames; color.
Reading, singing, painting, free activities in schoolroom; good attitudes illustrated.

C

3275. CABLE SPLICING (1942) A VI 1
(Aircraft Mechanics Series) JamH
116 frames.
Part I: Five-truck navy splice. Material used. Tools and methods used to replace spliced. control cable connections. Precautions.
Part II: Roebling roll splice. Material, tools and methods used. Step-by-step procedure for splicing.

3276. CAB-OVER-ENGINE TRUCKS (1941) A VI 1 JamH
(Automotive Mechanical Training Series - General Service and Sheet Metal Repair)
68 frames.
Instructions covering changes in service procedure due to unconventional design of Cab-Over-Engine Trucks.

3277. CANNING CHICKEN (No. 658) (1945) A III 3 USDA
45 frames.
Shows how to can poultry according to methods recommended by U.S. Bureau of Human Nutrition and Home Economics; quick and simple way to cut up a bird.

3278. CANNING FRUITS AND TOMATOES (No. 660) (1945) A III 3 USDA
49 frames.
Necessary equipment. How to can a fruit, illustrating step by step with peaches; how to can tomatoes by same method.

3279. CANNING MEAT (No. 659) (1945) A III 3 USDA
49 frames.
How to can meat, illustrated step by step.

3280. CANNING VEGETABLES THE STEAM-PRESSURE WAY (No. 661) (1945) A III 3 USDA
32 frames; double.
How to can vegetables (except tomatoes and pickled beets) under steam pressure illustrated by step-by-step demonstration of canning snap beans. Equipment required.

3281. CARBURETOR, THE (1941) A VI 1
(Automotive Mechanical Training Jam H
Series - Fundamentals, Internal Combustion Engine)
146 frames.
Basic principles involved in carburetion. Atomization and vaporization. Air-fuel ratio. Designs and devices used in carburetors.

3282. CARBURETORS AND MANIFOLDS (1939) D I 3 ETHYL
(Tractor Maintenance Film Kit)
29 frames.
Basic principles of operation; various cross sections of carburetors and manifolds; causes of poor carburetion; how to get best performance for farm tractors.

3283. CARE AND CLEANING OF SPRAY-PAINTING EQUIPMENT (1942) A VI 1 JamH
(Aircraft Mechanics Series)
49 frames
Importance of keeping spray-painting equipment clean and in good repair. Set-by-step procedure for cleaning pressure feed tank and pressure feed cup types of systems. Cleaning fluid hose, tank, safety valve, gun air cap, fluid tip, condenser unit, filter sack, compressor air receiver. Lubrication of gun and compressor. Daily lubrication of parts of gun and compressor; policy of maintaining constant level of oil in compressor crankcase.

3284. CARE AND REPAIR OF FARM MACHINERY (No. 628) (1942) D I 3 USDA
49 frames.
Illustrated charts (prepared by Missouri Extension Service): how machinery should be cared for and repaired.

3285. CARE AND REPAIR OF FLIGHT CONTROLS (1942) A VI 1 JamH
(Aircraft Mechanics Series)
37 frames.
How to service cables, pulleys, tubes, hinges, and other fittings. Necessity for frequent checks. How to start checking and repairing in cockpit and follow controls to termination. Why pilot has to depend upon mechanic.

3286. CAREERS IN CONVEYORS (1947) A VII
Sound: 29 min.** CEMA
Description of conveyor industry, its products and their uses in industry. Types of conveyors; their part in improved methods and increased production.

3287. CARRIAGE CONTROLS - FEEDS (1946) A II 7c JamH
(Safe Practices in Metalworking - Engine Lathe)
81 frames.

Operating carriage controls. Setting feeds. Carriage and feed controls.

3288. CASE OF INDEPENDENT SADIE (Insubordination) (1949) (Human Relations in Supervision (Case Problems) Series) Sound; 3 min. — A VI 1 McG-H

Sadie, materials inspector for month, has shown reluctance to take orders; finally openly defies foreman. When general foreman, informed of incident, tries to talk to her, he too, is defied. He orders her to leave immediately, but Sadie takes refuge in the ladies room and refuses all orders to come out. General foreman knows the whole department is watching him.

3289. CASE OF MARY BENSON (Insubordination) (1949) (Human Relations in Supervision (Case Problems) Series) Sound; 3 min. — A VI 1 McG-H

Mary, employee of considerable seniority and generally good record, disobeys work order assignment from her supervisor; sets herself another. Appeal to union steward brings no help. Faced with hours of production loss, her supervisor must do something.

3290. CATTLE GRUBS, OR HEEL FLIES (No. 637) (1942) 33 frames. — D I 4 USDA

Grub stage of heel fly at end of nine month journey through animal's body tissues. Controls applied for farm herds, for range. Seasonal and life cycles of pest; attack on cattle and their defense.

3291. CAUSE AND CURE (1945) (Safety Management for Foremen) Sound; 20 min.* — A II 7c NSC

Duty of foremen to make accurate full report on accidents since accidents have definite causes - and cures. Unsafe acts and conditions that foremen should look for.

3292. CENTER HOLES - MOUNTING WORK - FACING BETWEEN CENTERS (1946) (Safe Practices in Metalworking - Engine Lathe) 75 frames. — A II 7c JamH

Drilling center holes. Mounting work between centers. Facing work between centers.

3293. CENTERS - SETTING TOOLS - FACING (1946) (Safe Practices in Metalworking - Engine Lathe) 90 frames. — A II 7c JamH

Lathe centers. Setting up lathe tools. Facing work in a chuck.

3294. CENTRIFUGAL FORCE (1943) (Air Age Physics - Mechanics) 55 frames. — C VIII JamH

Uniform circular path velocity. Central acceleration. Centripetal force and equal and opposite centrifugal force. Applications.

3295. CHANGING WORLD, THE (1948) 93 frames.** — D II PCSA

Fundamentals in design and application of power shovels, lifting cranes, clamshell, dragline and hoe. How each may be applied to particular job for the best results. Power shovel yardages; how swing and digging depth affect shovel output; how dragline equipment is affected. Job and management conditions which affect production.

3296. CHASSIS ELECTRICAL SYSTEMS (1941) (Automotive Mechanical Training Series - Electrical System) 44 frames — A VI 1 JamH

Typical passenger-car wiring diagram. Operation and purpose of fuse. Suggestions on handling car wiring.

3297. CHECKING VALVE CLEARANCE (1942) (Aircraft Engine Mechanics Series) 54 frames. — A VI 1 JamH

How to prepare engine for check by removing rocker box covers and spark plug from each cylinder and placing piston on top center on firing stroke. Check on parts of valve operating mechanisms.

3298. CHEMICAL FORMULA, THE (1949) (Chemistry Series) 55 frames. — C IV McG-H

Chemical symbols and formulas as short designations for elements and compounds; save time and simplify communication among chemists. Step-by-step procedure of determining simplest formula of water by laboratory analysis. Radicals, valence numbers. Technique of determining combining number of element described.

3299. CHICAGO - THE CITY (1947) (American Scenes and Cities Series) 55 frames; color. — A IX 1 CAS

Marshal Field's; sidewalk markets; pushcarts on Maxwell Street; Lakeshore Drive; hotels and tenements; housing developments; the Loop. Brookfield Zoo; Holy Name Cathedral; University of Chicago, Yacht Club, Art Institute etc.

3300. CHICAGO - TRANSPORTATION (1947) (American Scenes and Cities Series) 35 frames; color. — A IX 1 CAS

Speed and efficiency with which Chicago distributes agricultural products, livestock, manufactured articles to world; trains, boats, trucks, airplanes in operation.

3301. CHINCH BUGS AND HOW THEY ARE CONTROLLED (No. 551) (1939) D I 4 USDA
36 frames.
Life stages and habits of the chinch bug; damage it does; how it may be controlled.

3302. CHUCKS - CHUCKING WORK (1946) A II 7c JamH
(Safe Practices in Metalworking - Engine Lathe)
95 frames.
Kinds of lathe chucks. Reversing and installing jaws. Installing and removing chucks. Mounting work in 3-jaw universal chuck. Mounting work in 4-jaw independent chuck.

3303. CIRCULAR SAW: PARTS - INSTALLING A BLADE A VI 1 JamH
(Wood Shop - Woodworking Tools and Machines)
76 frames.
Introduction to circular saw. Kinds of circular saws. Names and functions of parts. Kinds of blades. Installing blade.

3304. CIRCULAR SAW: SETTING UP - OPERATING (1944) A VI 1 JamH
(Wood Shop - Woodworking Tools and Machines)
64 frames.
Safe practices for setting up circular saw. Safe practices for using circular saw.

3305. CIRCUS, THE (1947) A IX 1 CAS
36 frames; color.
Behind the scenes practical preparations for circus performance; feeding animals; elephants at work; clowns, ringmaster, and performers "making up" for acts.

3306. CITIZENSHIP (No. 38E) (1951) A VIII CurrF
236 frames; color.
Eight strips, for school children, on rights and obligations of citizens in a democracy, as follows: (302) Citizens in a Democracy; (303) Freedom of Worship; (304) How Laws Protect the Citizen; (305) Being Active in the Government; (306) Freedom of Speech; (307) Education in a Democracy; (308) How Government Helps the People; (309) Tests on Rights and Duties.

3307. CITY ADVENTURES (No. 7) (1951) A IV 2 CurrF
133 frames; color.
Five stories stressing safety in play, to motivate reading and discussion among children, as follows: (57) Vacation in the City; (58) Bill's Scooter; (59) The Lake in the Park; (60) On the Road to the Country; (61) Visiting Grandma.
For young children.

3308. CITY COMMUNITY (No. 13) (1951) A IX 1 CurrF
235 frames; color.
Twelve strips on food, clothing, shelter, transportation, work and play in a (U. S. A.) city, as follows: (105) The City; (106) Homes in the City; (107) Carol's Apartment House; (108) The City Playground; (109) The City Park; (110) Transportation in the City; (111) The Bakery; (112) How the City is Fed; (113) Factory Workers; (114) Office Workers; (115) Stores in the City; (116) Carrying Freight.
For young children.

3309. CLASSIFICATION OF OCCUPATIONS (1942) A VI 5 MAHNKE
60 frames.
Typical jobs in seven major occupational classifications as developed by U. S. Department of Labor.

3310. CLASSROOM CRAFTS (No. 62) (1951) A V 1 CurrF
200 frames; color.
Eight strips, to encourage children to use creative abilities in handicrafts, comprising series of close-up photographs, as follows: (485) Raffia Work; (486) Wire Sculpture; (487) Paper Sculpture; (488) Clay Modeling; (489) Plaster Casting; (490) Puppet Heads and Hands; (491) Puppet Bodies and Costumes; (492) Puppet Stage and Scenery.

3311. CLEANED AIR - NO WEAR (1939) D I 3 ETHYL
(Tractor Maintenance Film Kit)
33 frames.
Purpose, use and proper servicing of air filters on tractors. How clean air prevents wear in tractor engine.

3312. CLEANING AND PAINTING TIE RODS, STRUTS AND SHEET METAL (1942) A VI 1 JamH
(Aircraft Mechanics Series)
52 frames.
Care of various types of finished stainless steel, cadmium platings or paint. Proper procedure for cleaning tie rods. Use of phosphoric acid cleaners, emery cloths and steel wool. Application of primer paint, aluminum finishes, military lacquers. Spot finishing. Finishing or refinishing struts and sheet metal. Proper coat application procedure; method of thinning mixtures and setting spray gun nozzles.

3313. CLEANING THE AIRPLANE (1942) A VI 1 JamH
(Aircraft Mechanics Series)
45 frames.
Good-housekeeping the airplane. Cleanliness and appearance as aids to inspection. Cleanliness as safety factor. Parts of airplane most often needing cleaning. Cleaning materials and compounds to be used on various materials. Hints and knacks for thorough cleaning. Inspection after cleaning to be sure airplane is safe to fly.

3314. CLEANING THE POWER PLANT (1942) A VI 1 JamH
(Aircraft Engine Mechanics Series)
45 frames.
Reasons for keeping power plant clean. Safety

rules. Selecting solvents and tools. Inspecting before and after cleaning. Procedure. Cleaning cowling and disconnecting batteries. Cleaning oil and fuel lines. Cleaning and inspecting exhaust system; engine mounting. Drying with air spray. Final inspection.

3315. CLERICAL AND SALES OCCUPATIONS (1942) A VI 5 MAHNKE
60 frames.
Jobs in offices for men and women as sales people who work inside and outside; demonstrators, receptionists, hotel clerks, public utility positions, etc.

3316. CLOSING THE BOOKS (1949) A VI 3 McG-H
(Accounting Series)
32 frames.
Reasons for closing books at end of year: (1) Recording closing entries in general journal; (2) posting closing entries to ledger accounts; (3) ruling and balancing the accounts; and (4) checking accuracy of closing by preparing post closing trial balance.

3317. CLUSTER WELDS (1942) A VI 1 JamH
(Oxyacetylene Welding - Further Practice - Steel)
32 frames.
Special tools for cluster welding. Preparation and materials. Inspection.

3318. CLUTCH, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series - Principles of Power Transmission)
55 frames.
Cone and friction disc types; their principles of operation.

3319. CLUTCH, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series - Servicing Power Transmission Units)
101 frames.
Part I: Preliminary inspections and adjustments, and overhaul of the conventional clutch for 1934 to 1937, inclusive, used in U. S. A. automobiles.
Part II: Removal, disassembly, inspection and reassembly of the diaphragm spring clutch for cars of U. S. A. manufacture, 1938-1941.

3320. COAST GUARD AT WORK (No. 15) (1951) A IX 1 CurrF
75 frames; color.
Three strips on duties of United States Coast Guard; operation of lighthouses and lifeboat stations; as follows: (123) The Coast Guard Life Boat Station; (124) A Day at The Light House; (125) A Coast Guard Rescue.
For young children.

3321. COLD WEATHER STARTING (1942) A VI 1 JamH
(Aircraft Engine Mechanics Series)
49 frames.
Procedure in cold weather to overcome thick oil, stiff grease, moisture condensed as ice in engine and fuel line. Priming engine and heating oil. Checking spark plugs and other possible causes of trouble. Draining oil and water. Emergency measures.

3322. COLLEGE AUDIO-VISUAL CENTER, THE (1949) A VI 3 YAF
(Audio-Visual Series)
37 frames.
Story of audio-visual aids center as organized and operated at Washington State College, Pullman, Washington, U. S. A. For training of teachers in use of visual and audio aids to group instruction.

3323. COLLETS - FACEPLATES - RESTS (1946) A VI 1 JamH
(Safe Practices in Metalworking - Engine Lathe)
85 frames.
Installing and removing draw-in collet attachment. Chucking work. Installing and removing faceplates. Mounting work. Lathe rests.

3324. COLONIAL LIFE (No. 35) (1951) A IX 1 CurrF
200 frames; color.
Eight strips; how colonial settlers of North America lived; how they met problems of food, shelter, clothing; earned a living; their social and religious life; how they developed the foundations of American democracy; as follows: (281) Life in Jamestown; (282) Life in Plymouth; (283) Life on a New England Farm; (284) Life in a New England Town; (285) Life in New Netherlands; (286) Life on a Southern Plantation; (287) Life in a Southern Town; (288) How Democracy developed.

3325. COLUMNAR JOURNALS (1949) A VI 3 McG-H
(Accounting Series)
50 frames.
Advantages and technique of using additional journal columns for recording, classifying, analyzing information on various types of transactions. Recordings in columnar sales journal for on-account sales, cash sales, and C. O. D. sales; correlated entries in cash receipts journal. Postings to general ledger and subsidiary ledgers. Form and operation of columnar purchase journal, cash receipts journal, general journal. Use of machines.

3326. COMMITTEE CHAIRMAN'S JOB, THE (1947) A I 5 e GScout
106 frames; color. (9)
How a Girl Scout committee chairman learns and prepares for her job; preparation for, holding, and follow-up of committee meetings.

3327. COMMON EMERGENCIES (1942) (First Aid Series) A II 5 JamH
58 frames.
Appendicitis, choking, diarrhea, earache, toothache, common colds, sunburn, poison ivy, poison oak and sumac, insect bites, and fainting.

3328. COMMUNITY WORKERS (No. 14) (1951) A IX 1 CurrF
150 frames; color.
Six strips, on groups of people who contribute to the American community; how they make the community a better place to live in; how a child may cooperate with them; as follows: (117) Policemen at Work; (118) Larry Helps the police; (119) The Fire House; (120) Firemen at Work; (121) Workers for Health; (122) Post Office Workers. For Children.

3329. COMPLETING THE TRANSMISSION OF POWER (1941) A VI 1 JamH
(Automotive Mechanical Training Series - Principles of Power Transmission)
38 frames.
Propeller shafts, universal joints, Hotchkiss and torque tube drives.

3330. COMPLIMENT CLUB, THE (1946) A VI 1 DARTNELL
Sound; 30 min.
Sincere compliment as selling device to ease tension, break down bias, overcome normal prejudice and resistance. Use of compliment technique illustrated; effect on personalities of individuals involved.

3331. COMPOSITION IN PRINTING (1951) E IX McG-H
(Photographic Darkroom Procedures, Series II)
54 frames.
Right and wrong presentation of pictures compared to illustrate basic composition principles; how print composition can be improved in making enlargements by easel positioning, by cropping, by spot printing, by dodging.

3332. COMPOUND SUBTRACTION (1947) C VII 1 POP
(Primary Arithmetic Series)
44 frames.
Compound subtraction explained for young children; illustrated with manipulative materials. Decomposition method of subtraction used.

3333. CONDITIONING AND CLEANING SEED COTTON (No. 512) (1939) D I 1 USDA
62 frames.
Proper picking and drying of cotton to preserve natural value. Types of drying and cleaning equipment in use.

3334. CONDUCT AND BEHAVIOR (No. 17) (1951) A VI 4 CurrF
250 frames; color.
Ten strips, on desirable social conduct for young child; consideration for others; responsibility, at school and in unsupervised and out-of-school activities; as follows: (135) In school; (136) On the Playground; (137) On the Street; (138) At home; (139) Visiting Friends; (140) Traveling; (141) Shopping; (142) In Public Buildings; (143) The picnic; (144) Responsibility. For young children.

3335. CONGRESS: ORGANIZATION AND PROCEDURE (1950) A VIII McG-H
(American Government Series)
44 frames.
Distinguishing differences between U.S. Senate and House; organization, procedures, election of members and delegated authority. Part played by political party machinery in organization and operations of each house of congress; in conduct of various standing committees. Steps through which bill passes from introduction in either legislative body to final passage, defeat of veto.

3336. CONSERVING OUR RESOURCES (No. 31) (1951) D I 1 CurrF
200 frames; color.
Eight strips: Conservation of natural resources in the United States; importance of conservation; as follows: (247) Soil Resources; (248) Forest Resources; (249) Wildlife Resources; (250) Water Resources; (251) Mineral Resources; (252) Human Resources; (253) The Field Day (Man Cooperates with Nature); (254) Nature Cooperates with Man.

3337. CONSTITUTION - PRINCIPLES AND METHODS OF CHANGE, THE (1950) A VIII McG-H
(American Government Series)
37 frames.
Meaning and implication of seven basic principles around which Constitution is built: (1) popular sovereignty, (2) federal system, (3) federal supremacy, (4) representative system, (5) separation of powers, (6) judicial review, and (7) limited government. Basic principles remain fairly fixed; judicial review, amendment, interpretation. Continued need for reexamination, revision and general strengthening of Constitution to meet demands of modern world.

3338. CONSTRUCTION EQUIPMENT SAFETY (1945) A II 7c NSC
Sound; 15 min.*
Common mistakes responsible for most accidents with construction equipment. How they may be avoided. Standardized construction hand and whistle signals.

3339. CONSTRUCTIONS (1943) C VII 3 JamH
(Light on Mathematics - Geometry)
62 frames.
Geometrical constructions and their relation to problem solution. Reproductive and creative uses of construction principles.

3340. CONSUMER PROBLEMS IN NUTRITION (1949) A III 3 POP
(Food and Nutrition Series)
58 frames.
Science of wise spending; knowledge and planning needed. Quality. Quantity. How foods are graded. Meaning and importance of labels; of merchants' advertising. How home storage facilities affect buying.

3341. CONTACT PRINTING (1949-50) E IX
(Photographic Darkroom Procedures Series) McG-H
67 frames.
Making of contact prints, using both printing box and printing frames. Correct technique of transferring prints from one solution to another; with tongs, with fingers. Recommended method of agitating prints during development and fixing. Different contrast grades of printing paper; when each is used. Standard washing and drying procedures for both matte and glossy surface prints.

3342. CONTROL OF BLEEDING (1949) A II 5 SVE
(First Aid Series)
34 frames.
How to stop blood flow by compressing various veins and arteries; where these are located; points at which pressure should be applied.

3343. CONVENIENT STORAGE SPACES (No. 408) (1936) D I 3 USDA
62 frames.
Closets and other storage rooms and equipment which save time and work in home and add comfort. Floor plan for house well equipped with storage space.

3344. COOKING MEAT ACCORDING TO THE CUT (No. 314) (1947) A III 3 USDA
54 frames.
Principles of cooking tender and less tender cuts of meat to conserve food value and bring out flavor, illustrated. Cuts defined; how to prepare; how to cook.

3345. COOKING POULTRY (OLDER BIRDS) (No. 561) (1939) A III 3 USDA
38 frames.
Principles of cooking older chickens, turkeys, ducks, geese and guineas. Slow cooking with moderate heat recommended. How to prepare birds for cooking; how to cook (braise, casserole, steam, stew); how to serve.

3346. COOKING POULTRY (YOUNGER BIRDS) (No. 560) (1939) AIII 3 USDA
51 frames.
Principles of cooking younger chickens, turkeys, ducks, geese, squabs and guineas. Moderate heat recommended, in uncovered pan; frequent turning. How to prepare birds for broiling, pan-frying, French-frying, roasting; how to serve.

3347. COOLING SYSTEM, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series - Fundamentals, Internal Combustion Engine)
73 frames.
Thermo-syphon systems, pump systems; by-passes and thermostats.

3348. COOLING SYSTEM, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series - Servicing Engine Assembly)
43 frames.
Cleaning and reverse flushing. Reconditioning system.

3349. CORE CLASS IN ACTION, A (1949) A VI 3 Wayne
50 frames.
Ninth grade core class followed from first meeting through evaluation of work done. Teacher's function in core class shown; how pupil-teacher planning is accomplished; how individual needs are met and individual skills developed.

3350. CORN BELT FARMERS FIGHT EROSION (No. 572) (1939) D I 1 USDA
43 frames.
How farmers in United States combat erosion by contour farming, terracing, rotation planting, diversion drainage, check dams.

3351. CORN CHEMURGY IN ACTION (1949) C IV CAS
(Technical Subjects for Higher Training)
36 frames; color.
How corn enters into manufacture of clothing, rugs, paper, explosives, cosmetics, soap, laundry starch, baking powder, plastics, frozen fruit, medicine.

3352. CORN COLOR AND CORN MIXTURES (1944) D I 1 DeK
61 frames; color; silent. **
Simple genetics. Yellow, white and red coloration in corn kernal; results of crossing yellow with red, etc. Value of pure seed.

3353. COUNTRY ACTIVITIES -MORE ABOUT THE COUNTRY (No. 12) (1951) A IX 1 CurrF
200 frames; color.
Eight strips, on activities and community contributions of farmers to life in the United States, as follows: (97) The Lumber Mill; (98) Building a House; (99) Making Maple Syrup; (100) The Story of Corn; (101) The Goat Farm; (102) Mr. & Mrs. Peet, Dairy Farmers; (103) Farm Pets; (104) Autumn in the Country. For young children.

3354. COUNTRY COMMUNITY, THE (No. 11) (1951) A IX 1 CurrF
235 frames; color.
Ten strips, presenting child's view of life in the country--school, farming, recreation, home--as follows: (87) The Country School; (88) Field Day at School; (89) Bob Osborn, Farm Boy; (90) Vegetables for the City; (91) Grass and Hay; (92) The County Fair; (93) Farm Animals at the Fair; (94) The Girls' 4-H Club; (95) The Brook; (96) The Pet Parade. For young children.

3355. COUNTRY DOCTOR, THE (1947) A IX 1 CAS
(Rural America Series)
63 frames.
Seven days in life of country doctor; he vaccinates against smallpox; bandages injured foot; makes microscopic examination of blood specimen; rushes boy to hospital for emergency operation. How community depends on doctor.

3356. COUNTY AGENT (1947) A VIII CAS
(Rural America Series)
51 frames.
County (Agricultural) Agent at work, advising farmers, demonstrating: spraying fruit; vaccinating calf; helping build better barn; keeping cows "contented," testing seeds, etc. Home Demonstration Agent advises housewives in pressure cookers, cheese making, care of furniture, making dresses, etc. Importance of 4-H Clubs.

3357. COUNTY AGENT, THE (No. 654) (1944) A VIII USDA
64 frames.
Work of county (agricultural) agent; his background (preparation for job); how he helps farmers solve problems. His influence as leader in rural affairs.

3358. COUNTY AUDIO-VISUAL SERVICE PROGRAM, THE (1949) A VI 3 YAF
(Audio-Visual Series)
52 frames.
Function and operation of audio-visual service in San Diego County, California.

3359. COVERING WITH FABRIC (1942) A VI 1 JamH
(Aircraft Mechanics Series)
65 frames.
Covering wing structure; methods. Sewing strips together, preparing structure interior, wires, cables. Smoothing wrinkles; cutting, fitting. Handling protrusions; covering with blanket method; covering with envelope or slip-cover method. Tape reinforcing and rib stitching surface. Reinforcing patches. Doping.

3360. CREATING A STANDARD OF EXCELLENCE (1948) D I 2 AmGCC
27 frames; color; silent. *
Qualities in cows which make for production and long useful life; in a bull, those which are desirable for transmission. Four general points in judging cows: general appearance, dairy character, body capacity, mammary system. How excellence of sire is measured: general appearance (legs and feet emphasized), character, body capacity, quality of daughters (reproduction and conformation) and of sons (transmitting ability).

3361. CREATING WITH CLAY (1949) E X NYFL
41 frames.
Step-by-step illustration of development of clay model, from purchase of clay to final firing of finished product.

3362. CURRENT AND VOLTAGE REGULATION (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Electrical System)
103 frames.
Necessity for generator regulation. Explanation of third-brush, external current and external voltage regulations.

3363. CURRENT ELECTRICITY (1941) C VIII JamH
(Basic Electricity Series)
74 frames.
Change of chemical energy into electrical energy. Primary and secondary cells.

D

3364. DAIRY HERD IMPROVEMENT ASSOCIATION, THE (No. 554) (1939) D I 2 USDA
38 frames.
Positive identification of animals necessary in order to trace family lines for possessors of superior inheritance. Tester eartags animals; records findings with United States Bureau of Dairy Industry.

3365. DAY AND NIGHT (1949) C I YAF
(Elementary Science Series)
34 frames.
How day and night are caused by rotation of earth.

3366. DAY IN SCHOOL, A (1946) A I 1 POP
(A Day with Bobby and Ellen Series)
38 frames.
Stressing promptitude in arrival at school; tidiness. Morning check-up on health. Ventilation in school; temperature. Day's program. Play in school yard. Midmorning milk. Washup before lunch. School lunch. Putting things away as school day ends.

3367. DECIMALS AND PERCENTAGE (No. 27) (1951) C VII 1 CurrF
234 frames; color.
Nine strips: decimals as extension of common fractions; basic concepts; methods of work; their mastery, explained through everyday experience of average child; as follows: (210) Introduction to Decimals; (211) Decimals and Common Fractions; (212) Comparing Decimals; (213) Adding and Subtracting Decimals; (214) Multiplying Decimals; (215) Dividing Decimals; (216) Introduction to Percentage; (217) Using Percentage; (218) Problems in Percentage.

3368. DEFENSIVE DRIVING (1945) A II 7d NSC
Sound; 20 min. *
Dramatization to bring out principles of defensive driving, with courtesy.

3369. DEMONSTRATION--A TEACHING TECHNIQUE, THE (1952) — A VI 3 Wayne
38 frames.
Principles of a successful demonstration: at elementary, high school and college levels.

3370. DENSITY AND SPECIFIC GRAVITY--FLOTATION (1946) — C VIII JamH
(Air Age Physics--Fluids)
66 frames.
Definition of density. British and metric units. Definition of specific gravity. Laws of flotation.

3371. DEPARTMENT OF AGRICULTURE (1946) — A VIII YAF
(Federal Government Series)
38 frames.
Important divisions of United States Department of Agriculture; work of each. How the department serves farmers; protects and aids consumers.

3372. DEPARTMENT OF THE INTERIOR (1946) — A VIII YAF
(Federal Government Series)
37 frames.
Goal of U. S. Department of the Interior defined as conservation of national resources, human and material. How it promotes general public welfare by building of dams which supply cheap power, reclaim land, prevent floods. Miscellaneous functions of department (supervision of Indian reservations, geographic surveys, etc.).

3373. DESIGNING EXAMINATIONS (1942) — A VI 1 JamH
(Informal Pointers for Teachers, Nos. 8 and 9)
Sound: 22 min.; or silent, 58 and 59 frames.
Part I. Value of examinations; discussion of essay type.
Part II. Continuation of discussion on examinations with emphasis on objective type tests.

3374. DEVELOPING ROLL FILM (1950) — E IX McG-H
(Photographic Darkroom Procedures Series)
62 frames.
Standard procedures for tank and tray methods, using solutions of developer and acid fixer made from commercially available prepared mixtures. Following fixing, proper methods of washing, drying and preserving negatives demonstrated.

3375. DEVELOPING SHEET FILMS AND FILM PACKS (1950) — E IX McG-H
(Photographic Darkroom Procedures Series)
46 frames.
Standard procedures in developing, fixing, washing and drying of sheet film negatives. Unique method of trimming film pack negatives so they can be processed as easily as sheet film negatives. Technique of proper agitation of negatives during development and fixing shown in detail.

3376. DEWEY JONES (Poor Leadership) (1949) — A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Dewey, as reward for good work, is appointed working gang leader over three men in shipping department. Supervisor finds that instead of organizing work, assigning it to his men, Dewey pitches in himself, fails to see that others' time is efficiently used. Supervisor speaks to him; Dewey promises reform. Finally, finding some material piled dangerously, supervisor asks reason. Dewey replies that in spite of repeated requests to his crew they seem to pay no attention to him.

3377. DIAGNOSIS OF BEE DISEASES IN THE APIARY (No. 171) (1942) — D I 2 USDA
58 frames.
Symptoms of different diseases of bees distinguished in the apiary; methods of control.

3378. DIFFERENCE OF OPINION, A (Among Supervisors) (1949) — A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Notice is posted of general union meeting to decide acceptance or rejection of company contract. Each of four supervisors differs as to whether employees should be urged to attend.

3379. DIFFERENTIAL, THE (1941) — A VI 1 JamH
(Automotive Mechanical Training Series--Principles of Power Transmission)
39 frames.
Why differential is used and how it operates.

3380. DIFFICULT ONES, THE (1946) — A II 4d VETS
45, 36, 41 frames. **
How to recognize and deal with neuropsychiatric contacts.
Part I. Psychiatric Problems Met by Contact Representative.
Part II. Difficult Ones' Effect on Contact Representative.
Part III. Getting Help for Veterans with Emotional Problems.

3381. DISK SANDER (1944) — A VI 1 JamH
(Wood Shop--Woodworking Tools and Machines)
48 frames.
Introduction to disk sander. Kinds of disk sanders. Names and functions of parts. Safe practices for setting up disk sander. Safe practices for disk sanding.

3382. DISEASES OF CEREALS (No. C-4) (1949) — D I 4 USDA
81 frames; color.
Some common diseases of cereals; symptoms and effects of diseases on plants.

3383. DISEASES OF FRUITS (No. C-5) (1949) — D I 4 USDA
53 frames; color.
Some common diseases of fruits, showing injury to fruits and plants.

3384. DISEASES OF VEGETABLES (No. C-3) (1949) — D I 4 USDA
103 frames; color.
Some common diseases of vegetables; symptoms and effects of diseases on vegetables and plants.

3385. DO THEY COME OUT SMILING? (1942) — A VI 3 CINBTC
Sound; 12 min. **
Dramatization of good performance in serving customers at bank teller's window, over the counter, across the desk, as well as in work done behind the scenes.

3386. DOCTOR'S ORDERS (1945) (Safety Management for Foremen) — A VI 1 NSC
Sound; 25 min. *
Advisability of first aid care even for small injuries. Foreman's responsibility in such matters. Importance of regular physical examination of workmen and of accident reports on first aid cases.

3387. DOUBLE HORSESHOES (1947) — A VI 1 DARTNELL
Sound; 15 min.
Need in competitive selling for courtesy in employees and for better service to customers.

3388. DOWN-DRAFT CARBURETOR, THE (1941) (Automotive Mechanical Training Series--Servicing Engine Assembly) — A VI 1 JamH
112 frames.
Part I: Complete assembling instructions for down-draft carburetors from 1934 to 1941, inclusive (U. S. A. manufacture).
Part II: Practical repair methods used in correcting carburetor troubles, models 1934 to 1941, inclusive (U. S. A. manufacture).

3389. DRAWING AN ANCHOR PLATE (1942) (Aircraft Mechanics Series) — A VI 1 JamH
20 frames.
List and picture of tools needed for drawing an anchor plate. Set-up on drawing board. Layout of center line and complete horizontal dimensions. Layout of verticals. Layout holes with arcs and circles. Drawing horizontal object lines. Drawing vertical object lines. Drawing in diagonal. Drawing dimension arrowheads and lettering the plate.

3390. DRESSINGS AND BANDAGES (1942) (First Aid Series) — A II 5 JamH
89 frames.
Part I: Materials used in bandaging wounds. How to apply bandages.
Part II: Commonly used bandages.

3391. DRILL PRESS (1944) (Wood Shop--Woodworking Tools and Machines) — A VI 1 JamH
82 frames.
Introduction to drill press; names and functions of parts. Safe practices for setting up, using drill press.

3392. DRILL PRESSES (1941) (Introduction to Machining Series) — A VI 1 JamH
85 frames.
Part I: Types of drill presses; their structural parts. When and where used. Holding drill in press.
Part II: Holding work in press. Seven major operations performed with drill press; drilling, reaming, boring, counterboring, countersinking, spot facing, and tapping.

3393. DRILLS AND DRILLING (1941) (Bench Work) — A VI 1 JamH
87 frames.
Types of drilling. Parts of drill. Drilling machines. Techniques of drilling.

E

3394. EARLY MAN AND HIS FOOD (1948) — A III 3 POP
40 frames.
Steps in man's quest for more certain and plentiful food supply.

3395. EAT WELL! LIVE WELL! (1949) (Food and Nutrition Series) — A III 3 POP
52 frames.
What human body needs from foods for optimum living. Importance of preparing foods to conserve nutrients. Importance of pleasant surroundings at meal time. Exercise; relation to calories. Minerals; vitamins; proteins. Balanced diet. How to purchase, store and serve foods. Table manners.

3396. EDWARD JENNER AND THE STORY OF SMALLPOX VACCINATION (1944) (Health Heroes Series) — A IX 2 METL
76 frames. **
Life of Jenner, who developed vaccination against smallpox, portrayed against background of contemporary events and personalities.

3397. EDWARD LIVINGSTON TRUDEAU (1942) (Health Heroes Series) — A IX 2 METL
67 frames. **
Trudeau's life story; public health's great triumph over tuberculosis.

3398. EFFECTIVE DEPUTIZATION (1940) A VI 1 NatFORE
(Thoughts on Management Series)
Sound; 15 min.
Relationships between superiors and subordinates; with superiors. Leeway allowable to subordinates; importance of subordinates' state of mind.

3399. EFFECTS OF MOLECULAR MOTION (1947) C VIII JamH
(Air Age Physics--Matter and Molecules)
61 frames.
Molecular motion in gases; why gases are expansible; exert pressure; why gas pressure is inversely proportional to volume. Diffusion of gases. Other examples of molecular motion. Osmosis. Applications in plant and animal life.

3400. EIGHTEENTH CENTURY ENGLAND (1950) A IX 2 LIFE
51 frames; color.
The English scene during eighteenth century; beginnings of ideas and institutions taken for granted today. Era of wit and elegance, rising industrialism and expanding empire.

3401. ELECTRIC CELL, THE (1941) C VIII JamH
(Basic Electricity Series)
50 frames.
Change of chemical energy into electrical energy. Primary and secondary cells.

3402. ELECTRIC CURRENT MEASUREMENT (1952) C VIII McG-H
(Automotive Mechanics, Set I)
33 frames.
Ampere, volt, ohm explained; effect of varying circuit conditions on these three fundamentals. Ohm's law explained and demonstrated in series and parallel circuits in automobile. Excessive voltage drop in automotive circuits described.

3403. ELECTRIC CURRENT PRINCIPLES (1952) C VIII McG-H
(Automotive Mechanics, Set I)
37 frames.
Electricity defined; how electric particles behave; electron theory of electricity explained. Negative and positive charges. Electric current as flow of electrons. Conductors and insulators.

3404. ELECTRIC METERS (1941) C VIII JamH
(Basic Electricity Series)
83 frames.
Construction and operation of various types of meters for electrical use.

3405. ELECTRIC MOTORS (1941) C VIII JamH
(Basic Electricity Series)
66 frames.
Principles of motor. Direct and alternating current motors. Universal motors.

3406. ELECTRICITY (1949) C VIII YAF
(Elementary Science Series)
41 frames.
Factors which affect flow of electricity through simple circuit.

3407. ELECTRICITY AND THE STORAGE BATTERY (1941) A VI 1 JamH
(Automotive Mechanical Training Series-Electrical Systems)
163 frames.
Part I: Fundamental aspects of electricity. Principles of simple, primary and secondary cells, Ohm's Law, series and parallel connections.
Part II: Storage battery of secondary cells. General construction and operation.

3408. ELECTROLYSIS (1949) C IV McG-H
(Chemistry Series)
42 frames.
Electrolytic decomposition of liquid demonstrated and explained in terms of theory of ionization. Practical applications of electrolysis in refining of copper and production of aluminum; how applied in commercial electroplating processes. Relative activity of metals explained in terms of readiness to lose electrons: replacement series (table) of metals. Electricity generated through chemical (oxidation-reduction) action.

3409. ELECTROMAGNETISM (1941) C VIII JamH
(Basic Electricity Series)
55 frames.
Construction and use of electromagnet. Effects of electromagnetic field.

3410. ELEMENTS OF ART (No. 44) (1951) E VIII CurrF
232 frames; color.
Eight strips to help school children express themselves through drawing and painting, as follows: (330) Lines; (331) Shapes; (332) More Shapes; (333) Solid Shapes; (334) Color; (335) Using Color; (336) Proportion; (337) Painting a Picture.

3411. EMERGENCY SEAPLANE FLOAT REPAIR (1942) A VI 1 JamH
(Aircraft Mechanics Series)
63 frames.
Quickest and best methods of bringing float repair kit into action. How to insert temporary rivets. How to make patches temporarily watertight. How distance from land or from base of operation determines type of repair to be made. How ingenuity and know-how will keep'em floating in emergency.

3412. EMERSON'S NEW ENGLAND (1950) A IX 1 LIFE
67 frames.
Selection of photographs, with quotations from 19th Century writers, to evoke spirit and atmosphere of "the Golden Age" of U. S. A. letters.

3413. EMMA TRIMBLE (Training for Flexibility) (1949) (Human Relations in Supervision (Case Problems) Series) Sound; 3 min. — A VI 1 McG-H

Emma, new clerk in personnel, learns fast, is dependable, frequently asks for additional assignments. Supervisor gets her to agree to learn other jobs in department so that she can substitute. Trained in two more jobs, shows unusual capacity for getting out work. When her supervisor wants to assign her still more responsible job, Emma says she wishes to stay at her present one. Month later, comes to her supervisor and asks to learn more jobs in department, as originally planned.

3414. ENERGY (1943) (Air Age Physics--Mechanics) 52 frames. — C VIII JamH

Ability to do work. Energy of position. Energy of motion. Units of energy. Conversion of energy from one form to another. Law of conservation of energy.

3415. ENGINE, THE (1941) (Automotive Mechanical Training Series--Servicing Engine Assembly) 57 frames. — A VI 1 JamH

Main bearing adjustment, piston fitting, piston pin fitting, piston ring fitting, connecting rod alignment, installing pistons, connecting rod bearing adjustment, and oiling system for U.S. A. engines from 1934 to 1941, inclusive.

3416. ENGINE CONTROL SYSTEMS (1942) (Aircraft Engine Mechanics Series) 38 frames. — A VI 1 JamH

Three types of controls described and explained: flexible wire and cable type, rigid tubing and wire type, and pushpull type. Use of these types for throttles, spark, mixture, choke, propeller, shutters and oil heaters. Methods of adjusting, inspecting and lubricating controls and various types of control handles.

3417. ENGINE INSTRUMENTS (1942) (Aircraft Engine Mechanics Series) 53 frames. — A VI 1 JamH

Purpose and use of engine instruments. Tachometer: details of construction; how it works. Oil pressure gauge: how Bourdon tube makes it work and what gauge does. Oil temperature gauge: parts and purpose. Different types of gasoline gauges: simple float or sight glass, distant-reading gauge, hydrostatic gauge.

3418. ENGINE LUBRICATING SYSTEMS (1941) (Automotive Mechanical Training Series--Fundamentals, Internal Combustion Engine) 63 frames. — A VI 1 JamH

Splash, pressure, combinations; refinements.

3419. ENGINE TUNE-UP (1941) (Automotive Mechanical Training Series--General Service) 144 frames. — A VI 1 JamH

Part I: Importance of engine, tune-up. General outline of procedure which can be followed in tune-up.
Part II: Continuing procedure begun in Part I.

3420. ENGLISH (No. 45) (1951) 283 frames; color. — A IV 4 CurrF

Ten strips on English grammar, syntax, usage; as follows: (352) Let's Look into Some of the Problems; (353) Seeing, Hearing, and Spelling; (354) How to Develop Aids for Remembering; (355) Use of the Dictionary in Spelling; (356) Subject and Predicate; (357) Modifiers--Adjectives and Adverbs; (358) Nouns; (359) The Importance of Vocabulary in Communication; (360) Words and Their Backgrounds; (361) How to Develop a Good Vocabulary.

3421. ENGLISH THROUGH PICTURES (1946) 640 frames. — A IV 4 EdS

Set of eight filmstrips paralleling the pocket book text "English through Pictures" by Professor I. A. Richards. Direct method of instruction. Recordings available, synchronized with the filmstrips, to provide integrated technique for English language teaching.

3422. ENTHUSIASM (1946) (Behind the Counter, No. 5) Sound: 10 min. — A VI 1 JamH

Difference in technique and in results between false high-pressure enthusiasm and honest, intelligent enthusiasm that sells customers the right merchandise.

3423. EQUATIONS (1949) (Chemistry Series) 35 frames. — C IV McG-H

Customary arrangement and meaning of equations used to summarize chemical changes; proper method of balancing simple equations by inspection. Meaning of various signs added to equations, explained. Different types of chemical reactions named and described.

3424. EQUATIONS AND FORMULAS (1943) (Light on Mathematics--Algebra) 63 frames. — C VII 2 JamH

Simple equations: what they mean; how solved. Multiple use of formulas. Transposition, timesaver for formula users.

3425. ERADICATION OF FOOT AND MOUTH DISEASE IN THE UNITED STATES (No. 683) (1948) 33 frames. — D I 2 USDA

Symptoms depicted to aid farmer in recognizing the disease. Why diseased animals must be destroyed; premises cleaned and disinfected, suspected cases reported to livestock authorities.

3426. ESKIMOS OF ALASKA (No. 20) (1951) — A IX 1 CurrF
108 frames; color.
Four strips on daily life in an Eskimo village; summer and winter activities contrasted; hunting, fishing, transportation, school, etc., as follows: (164) Summer Days; (165) Hunting and Fishing in Summer, (166) Winter Days; (167) Hunting and Fishing in Winter.

3427. ESSENTIALS OF DIET, THE (1949) — A III 3 POP
(Food and Nutrition Series)
50 frames.
Importance of eating right kinds and right quantities of food. Calories defined. Importance of balanced diet: seven basic groups illustrated and explained.

3428. ESTABLISHMENT AND MAINTENANCE OF GRASSED WATERWAYS (No. 559) (1939) — D I 1 USDA
29 frames.
How to slope and seed gullies to serve as waterways.

3429. EVERYONE A WINNER (1945) — A V 2 ZurAm
Sound; 15 min. **
Dramatized story of plant worker without outside interests or physical activities; doctor recommends he participate in plant recreational activities in order to remain physically healthy, mentally alert and socially acceptable. Sports to select according to age and physical conditions; how to find groups to join to acquire friendships, self-confidence, alertness, energy and good health.

3430. EXHIBIT IDEAS (No. 631) (1942) — D I 3 USDA
37 frames.
Exhibits (agricultural products, etc., at Fairs) analyzed and criticized.

3431. EXPLORING THE ATMOSPHERE --STREAMLINE FLOW (1946) — C VIII JamH
(Air Age Physics--Fluids)
81 frames.
Atmospheric pressure, density of atmosphere varies with altitude. Aviation applications. Three layers of atmosphere. Meaning of streamline flow. Influence of moving object's shape on fluid flow. Development of streamlining in field of transportation.

3432. EXPONENTS AND LOGARITHMS (1943) — C VII 2 JamH
(Light on Mathematics--Algebra)
87 frames.
Powerful "little numbers". Their convenience; variety; usefulness. Powers and roots visualized. Relationship to fractions and factors. Speeding up arithmetic and logarithms.

3433. EYE PROTECTION (1945) — A II 7c JamH
(Wood Shop--Basic Shop Safety)
82 frames.
Introduction to goggles. Selection, adjustment, care of chipper's goggles. Welder's goggles: helmets. Hand shields.

3434. EYES HAVE IT, THE (1940) — A II 7 c NSPB
122 frames.
How eye accidents happen in industry; how they may be prevented; emphasis on wearing proper eye protection while at work.

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3435. FABRIC REPAIR (1942) — A VI 1 JamH
(Aircraft Mechanics Series)
54 frames.
How to repair punctures and tears in airplane fabric by patching. Types of patches used. How to make patches. Trimming hole. Preparing surrounding surface. Cutting fabric patch. Pinking and fraying patch. Applying patch. Sewing tears. Repairing large area. Sewing patch. Repairing stretched but unbroken fabric.

3436. FABRICATION OF TUBING (1942) — A VI 1 JamH
79 frames.
Explanation of steps on annealing, bending, fitting and installing copper, aluminum, and dural tubing. Making pattern. Tools and their use. Making connections.

3437. FAIR WAGE BY JOB EVALUATION, A (1948) — A VI 1 NatFORE
Sound; 15 min.; color.
Method of determining fair wage by job evaluation illustrated by story of machine company's growth which necessitated a wage policy and system. Job evaluation program inaugurated. Processes of recording job duties, determining job differences, establishing wage rates accordingly. Advantages to employer, employee and supervisor of job evaluation and wage policy.

3438. FAMOUS TREES IN THE UNITED STATES (No. 507) (1939) — A IX 1 USDA
80 frames.
Trees in the United States which commemorate events; trees noted for size, age or unusual form; trees planted by early national leaders.

3439. FARM FORESTRY EXTENSION IN THE UNITED STATES (No. 393) (1936) — D I 5 USDA
69 frames.
How the growing of forest trees on farm woodlands under direction of state extension foresters and county agents offers benefits to farmer.

3440. FARM WATER SUPPLY (No. 104) (1937) — D I 3 USDA
48 frames.
Sources of water supply; how the supply can be made available for stock and home; how to keep it clean.

3441. FEDERAL BEEF GRADE STANDARDS (No. C-17) (1951) D III 3 USDA
45 frames; color.
Highly technical slidefilm interpreting official United States Standards for Grades of Carcass Beef.

3442. FEDERAL COURTS AND LAW ENFORCEMENT (1950) A VIII McG-H
(American Government Series)
40 frames.
Types of federal courts; areas of jurisdiction. Types of cases which come before federal courts; cases in which Supreme Court has original jurisdiction. Responsibility for federal judicial administration and law enforcement. Principal activities of Department of Justice in enforcement of federal laws.

3443. FEDERAL FINANCE (1950) A VIII
(American Government Series) McG-H
42 frames.
Steps involved in financial support of U. S. federal government. Kinds of federal taxes; limitations on taxing and spending powers of federal government imposed by Constitution. Problems arising from increasing duplication of federal and state taxes, interstate tax competition, ever-increasing cost of government.

3444. FEDERAL MEAT INSPECTION (No. 466) (1945) D I 3 USDA
42 frames.
Contrasts conditions that may exist where Federal meat inspection is not practiced with methods of Government inspection, by following through the work of Federal officials, observing live animals and after slaughter inspecting carcasses and parts; stamping and tagging, cooling and cutting up of carcasses; trimming, packing, shipping.

3445. FEDERAL SYSTEM --INTERSTATE RELATIONS AND CENTRALIZATION (1950) A VIII McG-H
(American Government Series)
35 frames.
Interstate relations in U. S. federal systems; effectiveness of "full faith and credit" clause in Constitution; how strengthened by some forms of cooperation between states; how weakened by judicial interpretation, by deliberate discrimination, and by competition between the states. Problems requiring greater interstate unity. Tendency towards more centralization of power in federal government; proposals made for recasting balance between nation and states.

3446. FEDERAL SYSTEM--THEORY AND FEDERAL --STATE RELATIONS (1950) A VIII McG-H
(American Government Series)
27 frames.
Division of governmental authority between central government and semi-independent parts, basis of federal system. How U. S. Constitution provides some powers be delegated to federal government, some reserved to individual states, others shared concurrently. Restrictions on states in form of prohibited powers. Obligations of federal government toward states.

3447. FIELD TRIP, THE (1946) A VI 3
(Child Cooperation and Self-Discipline Series) S--M
36 frames.
Steps in planning successful field trip; problems which may be encountered; how to meet them.

3448. FIFTEEN MINUTES TO GO (1947) A II 7c NSC
(Worker Training Course)
Sound; 15 min.*
Dramatizes risk involved in delaying or neglecting first aid for all injuries, no matter how small.

3449. FILLET WELDS--STEEL (1942) A VI 1
(Oxyacetylene Welding--Further Practice--Steel) JamH
24 frames.
Tools, equipment, materials and preparation for fillet welding of steel.

3450. FIND WHAT'S DIFFERENT (1950) A IV 2 CAS
(Reading Readiness Series)
22 frames.
Pictures in which something is missing or wrong (pig minus front leg, baby buggy with no handle, airplane with one wing); children are to point out and discuss omissions and errors.

3451. FIND WHAT'S WRONG (1950) C IV 2
(Reading Readiness Series) CAS
28 frames.
Groups of animals (squirrels, elephants, dogs) arranged to teach counting and observation and to encourage group discussion.

3452. FINDING THE RIGHT JOB FOR YOU (1951) A VI 1 McG-H
(Business Etiquette, Set I)
36 frames
How to go about selecting the kind of job wanted; how to locate job opening; how to telephone for appointment; how to prepare for interview.

3453. FINISHING ROUGH CASTINGS (1941) A VI 1 JamH
(Bench Work)
50 frames.
Parts of casting to be removed. Detailed steps in finishing casting. Tools used.

3454. FIRE DEPARTMENT, The (1947) A IX 1 POP
(Community Helpers Series)
42 frames.
Fire sirens (warning to traffic). Fire fighting equipment; how used. How children may cooperate (by reporting any fires seen).

3455. FIRST LESSONS IN BEEKEEPING (No. 346) (1941) D I 2 USDA
45 frames.
Standard equipment and practical method of handling bees for production of honey for home use.

3456. FIRST THINGS FIRST (No. 640) (1943) D I 1 USDA
25 frames.
How grassing of waterways controls erosion. How contouring holds run-off on land of gentle slope and grassed waterways direct it on greater slopes.

3457. FITTING DRESSES (No. C-13) (1950) A III 2 USDA
31 frames; color.
Simple alterations to solve common dressfitting problems.

3458. FIVE KEYS TO MATH (1943) C VII 1 JamH
(Light on Mathematics--Arithmetic)
48 frames.
Importance of mathematics in everyday and industrial life.

3459. FLANGED PARTS TRAY (1942) A VI 1 JamH
(Aviation Metalsmiths Series)
65 frames.
Layout procedure when bend allowances must be computed. Stretching metal over forms. Making flat patterns or stretch outs. Rolling and breaking sheet metal to dimensions. Squaring shear, cornice brake, bar folder. Forming angles to curves. Assembling, fitting, riveting parts.

3460. FLAT BUTT WELDS (1942) A VI 1 JamH
(Oxyacetylene Welding--Elementary Practice)
47 frames.
Preparation, procedures for flat butt welding. Inspecting weld. Tests.

3461. FLAT MAPS OF A ROUND WORLD (1948) C V POP
(Exploring through Maps Series)
56 frames.
Concept of longitude explained; various types of map projections.

3462. FLIGHT INSTRUMENTS (1942) A VI 1 JamH
(Aircraft Engine Mechanics Series)
87 frames.
Illustrations and descriptions of altimeter, rate of climb indicator, air-speed indicator, magnetic compass, turn and bank indicator, and artificial horizon. Mechanism and principle on which each device works. Use of each instrument, with instructions and necessary compensation for deviation, temperature, and other factors.

3463. FLORENCE NIGHTINGALE (1941) A IX 2 METL
(Health Heroes Series)
73 frames. **
Dramatic story of great nurse; her influence upon the medical profession. Variety of nursing careers open to young women today.

3464. FOLLOW THE LEADER (1945) A II 7c NSC
(Safety Management for Foremen)
Sound; 20 min. *
Step-by-step description of how to organize safety program. Ten components of good program are discussed.

3465. FOOD FOR US (No. 65) (1951) A IV 2 CurrF
249 frames; color.
Ten strips on the production, processing, and distribution of major foods, as follows: (507) Bread; (508) Meat; (509) Fish; (510) Milk; (511) Dairy Products; (512) Eggs; (513) Vegetables; (514) Fruits; (515) Cereals; (516) Preserved Foods. In young children.

3466. FOODS FOR HEALTH (1946) A III 3 YAF
(Primary Health Series)
41 frames.
In a letter two children visiting grandparent's farm tell of good, healthful foods they are eating; interesting activities of farm.

3467. FORCE (1943) C VIII JamH
(Air Age Physics--Mechanics)
52 frames.
Natural and man-made forces. Mass, acceleration, and force. Units of force.

3468. FORCE AND VELOCITY AS VECTORS (1943) C VIII JamH
(Air Age Physics--Mechanics)
53 frames.
Definition, explanation, and illustration of vector quantities. Measurements. Composition of vectors. Equilibrium. Application to navigation.

3469. FORCES IN FLIGHT (1942) A VI 1 JamH
(Aircraft Mechanics Series)
67 frames.
Definition and functions of fuselage, landing gear, power plant and control surfaces. Weight concentration point, or center of gravity and center of pressure. Parasite drag. Wing frictions, turbulence drag, interference drag. Factors of thrust. Glides. Climbing. Location of center of pressure relative to center of gravity. Flight characteristics caused by different forces. Corrections to counteract forces.

3470. FOREIGN RELATIONS (American Government Series) A VIII McG-H
43 frames.
Shaping of U. S. foreign relations, complex process; strategic parts played by President, Department of State, Congress. Differences

between international treaties and executive agreements. Organization and operation of U. S. foreign service. Functions of State Department. Recent emphasis in United States foreign policy on collective security and international cooperation. Functions and objectives of principal agencies and bodies of United Nations.

3471. FOREIGN TRADE--IT'S GOOD BUSINESS (1946) B IV PAC
57 frames.
What foreign trade means to United States citizen; interdependence of this and other countries in terms of life of typical American family and needs of its members.

3472. FORESTRY AND HUMAN WELFARE (No. 506) (1938) D I 5 USDA
59 frames.
How forests contribute to grazing of livestock and game; to water supply; to man's recreation.

3473. FOUR FIRSTS OF MOTOR MAINTENANCE (1943) A VI 1 WestH
Sound 15 min. **
Four principal causes of motor break-down: Dirt, friction, moisture, vibration. Results of neglect or faulty maintenance, shown. (See "Ten Checks of Electrical Control Maintenance")

3474. FOUR GREAT AMERICAN AUTHORS (No. 40) (1951) A IX 1 CurrF
108 frames; color.
Four strips on the lives of Irving, Longfellow, Whittier, and Mark Twain; as follows: (314) Washington Irving; (315) John G. Whittier; (316) Henry W. Longfellow; (317) Mark Twain.

3475. FOUR GREAT AMERICAN INVENTORS (No. 41) (1951) A IX 1 CurrF
108 frames; color.
Four strips on how Franklin, Morse, Whitney, and Fulton came to make their famous inventions; influence of their works on American way of life; as follows: (318) Benjamin Franklin; (319) Robert Fulton; (320) Eli Whitney; (321) Samuel F. Morse.

3476. FOUR GREAT AMERICAN PRESIDENTS (No. 39) (1951) A IX 1 CurrF
108 frames; color.
Four strips on the times of Washington, Jefferson, Jackson, and Lincoln; social, political, and economic backgrounds for study of each man and his influence; as follows: (310) Washington; (311) Jefferson; (312) Jackson; (313) Lincoln.

3477. FOUR GREAT AMERICAN TRAILBLAZERS (No. 43) (1951) A IX 1 CurrF
108 frames; color.
Four strips on men who opened areas of the North American continent to settlement; how they did it: Daniel Boone--Kentucky; George Rogers Clark--Northwest Territory; Lewis & Clark--The Great West; John C. Fremont--California.

3478. FOUR GREAT AMERICAN WOMEN (No. 42) (1951) A IX 1 CurrF
108 frames; color.
Four strips on parts in the building of the United States played by four women, as follows: (322) Pocahontas; (323) Betsy Ross; (324) Louisa May Alcott; (325) Clara Barton.

3479. FOUR-SPEED TRANSMISSION, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Servicing Power Transmission Units)
73 frames.
Disassembly, inspection, reassembly of four-speed transmission systems.

3480. FOURSTROKE CYCLE INTERNAL COMBUSTION ENGINE (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Fundamentals, Internal Combustion Engine)
113 frames.
Part I: Elementary principles of engine: cylinder, piston, crankshaft, flywheel. Fourstroke cycle principle.
Part II: Principles of engine: valve mechanisms, camshaft, mechanical timing, and differences in basic cylinder head designs. L-head. Valve-in-head, etc.

3481. FRACTIONS (No. 26) (1951) C VII 1 CurrF
225 frames; color.
Nine strips: basic concepts of fractions graphically explained; practice in their use; as follows: (201) What is a Fraction? (202) Writing Fractions; (203) Fractions of a Group; (204) How Large is a Fraction? (205) Adding Fractions; (206) Common Denominators; (207) Mixed Numbers; (208) Using Mixed Numbers; (209) Multiplying Fractions by Fractions.

3482. FRACTIONS, DECIMALS, AND PERCENTAGE (1943) C VII 1 JamH
(Light on Mathematics--Arithmetic)
59 frames.
From whole numbers to fractions to decimals to percentage and back. When to use decimal instead of fraction. When fractions are most practical. Importance of selecting form. Percentage problems the easy way.

3483. FRACTURES (1944) A II 5 SVE
(First Aid Series)
36 frames.
Types of fractures; how each should be treated.

3484. FRACTURES (SPLINTS) A II 5
(1942) JamH
(First Aid Series)
64 frames.
Fixed traction splints.

3485. FRACTURES (TREATMENTS) A II 5
(1942) JamH
(First Aid Series)
54 frames.
How to treat fractures of skull, nose, jaw, spine, ribs, pelvis, thigh, kneecap, feet and toes.

3486. FRACTURES (TYPES) A II 5
(1942) JamH
(First Aid Series)
55 frames.
Two principal types of fractures; treatment. Specific treatment for fractures of leg, forearm, upper arm, elbow, finger and collarbone.

3487. FRANCE IN THE EIGHTEENTH CENTURY (1951) A IX 2
LIFE
56 frames; color.
Age of Enlightenment (intellectual and social upheaval); conflict between arrogant wasteful ancient regime and the new worship of reason and tolerance, illustrated by contemporary drawings, paintings, engravings, etc.

3488. FRANCES MOORE A VI 1
(Interdepartmental Assistance) McG-H
(1949) (Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Frances, hard-working, capable stenographer likes to keep busy. Supervisor arranges for Frances to help out in another department; presently notices that Frances no longer reports to other department when her own work runs out. She refuses to do work of two certain persons in that department, who, as soon as she arrives there, leave department and loaf.

3489. FRED MAKES THE GRADE D I 2
(1948) AmBut
Sound; 22 min.
Story of man who has difficulty in operating a cream buying station until shown examples of proper operation as he visits other cream buying stations and talks with a skilled creamery fieldman.

3490. FREEDOM TODAY (1947) A VIII
(Our American Heritage Series) POP
52 frames.
Significance of free society; grave domestic challenges.

3491. FREEDOM'S FOUNDATIONS A IX 1
(1947) POP
(Our American Heritage Series)
50 frames.
Struggles and compromises leading to the adoption of the United States Constitution and Bill of Rights.

3492. FREEDOM'S PROGRESS A IX 1
(1947) POP
(Our American Heritage Series)
42 frames.
Advance of democracy in United States through 19th and 20th centuries.

3493. FREIGHTER, THE (1949) B V 2
(Ships and Harbor Series) YAF
35 frames.
Importance of freighter; types of freighters; how constructed to carry cargo; how operated.

3494. FRESH-WATER SHELLFISH AND AMPHIBIANS (1948) C II
JamH
(Water Life Series, No. 3)
70 frames.
Fresh-water mollusks and crayfish; life cycles and habits of frogs and other common amphibians.

3495. FRESH-WATER TURTLES AND FISH (1948) C II
JamH
(Water Life Series, No. 4)
66 frames.
Turtles and fish of North America; their habits. Importance to man.

3496. FRICTION (1943) C VIII
(Air Age Phycis--Mechanics) JamH
53 frames.
Work against friction. Useful friction. Lubrication to reduce friction. Kinds of friction: starting, sliding, rolling, fluid. Measurement of forces of friction. Streamlining to reduce fluid friction.

3497. FRIENDLINESS (1946) A VI 1
(Behind the Counter, No. 1) JamH
Sound: 10 min.
Five ways in which a salesperson may use true friendliness throughout a sale to build good will and assure return of customer.

3498. FRONT AXLES AND STEERING GEAR (1941) A VI 1
JamH
(Automotive Mechanical Training Series--Mobility Factors)
70 frames
Elliot, reverse Elliot, and Lemoine axle ends. Basic steering-gear linkage. Types of worm-gear applications.

3499. FUEL AND FEED (1942) A VI 1
(Aircraft Engine Mechanics Series) JamH
76 frames.
Purpose and operating principles of carburetor. Mixtures for internal combustion engines. Fuel tanks and fuel lines. Carburetor parts. Up-draft and down-draft carburetors. Following gasoline from fuel tank to combustion changer. Automatic mixture controls. Pumps and altitude controls. Primers and chokes.

3500. FUEL AND OIL TANK REPAIRS (1942) — A VI 1 JamH
(Oxyacetylene Welding--Elementary Practice)
32 frames.
Preparation for fuel and oil tank repairs. Cleaning metals. Safety. Tack welding. Testing.

3501. FUEL FEED SYSTEMS (1941) — A VI 1 JamH
(Automotive Mechanical Training Series--Fundamentals, Internal Combustion Engine)
56 frames.
Gravity feed; pressure feed vacuum tanks; mechanical pumps.

3502. FULL FLOATING REAR AXLE, THE (1941) — A VI 1 JamH
(Automotive Mechanical Training Series--Servicing Power Transmission Units)
95 frames.
Part I: Axle shaft replacement and rear wheel bearing replacement.
Part II: Third member assembly overhaul: propeller shaft, universal joint, ring gear, pinion, and differential assembly.

3503. FUN AT HOME (1951) — A IX 1 JamH
(At Home and School with Tom and Nancy Series)
24 frames; color.
At home after school Tom and Nancy play with pet rabbits; help father paint rabbit hutch. Play after supper; preparation for bed.

3504. FUN FOR CHILDREN (No. 6) (1951) — A IV 2 CurrF
100 frames; color.
Four stories, to increase oral and recognition vocabulary, as follows: (53) The Circus Gets Ready; (54) The Big Show at the Circus; (55) The Children's Zoo; (56) The Fun Park. For young children.

3505. FUN WITH MITZIE (1946) — A IV 2 POP
(Storytelling and Social Studies)
41 frames; color.
Care and behavior of pet cat. For young children.

3506. FUNDAMENTALS OF MOTOR SELECTION (1951) — A VI 1 GE
(Motor Selection and Application Course)
Sound; 15 min. **
How to select right motor for given job. Basic considerations: machine to be driven; motor horsepower required; electrical characteristics involved, control equipment and mechanical design features planned (enclosure, mounting, casing).

3507. FUNDAMENTALS OF MOTORS (1951) — A VI 1 GE
Sound; 15 min. **
(Motor Selection and Application Course)
Construction, principles of operation, applications of single phase and polyphase motors.

3508. FUNDAMENTALS OF THE GAS INDUSTRY (1946) — A VI 1 AmGasA
Sound; 45 min.
Unit I: Gas the Fuel. Historical sketch of industry; types and composition of fuel gases; production and distribution of gas; utilization of gas; superiorities of gas as fuel.
Unit II: Gas the Service. Gas company as public servant; maintaining good public relations; providing friendly service in home; building good will through customer contacts; representing the company.
Unit III: Building the Gas Load. Load building part of every job; keeping on lookout for leads; developing "salesmindedness"; helping to promote appliance usage; making friends for the company.

3509. FUSION (1948) — C VIII JamH
(Air Age Physics--Heat)
73 frames.
Melting and freezing. Characteristics of substances while freezing or melting. Heat of fusion. How to find heat of fusion of water. Temperature of melting ice.

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3510. GAS EXPANSION (1948) — C VIII JamH
(Air Age Physics--Heat)
69 frames.
How gases expand when heated. Demonstration of gas expansion. Laws of Charles and Gay-Lussac. Gas expansion formulas. Problems involving formulas for expansion of gases. Illustration and application of Boyle's Law.

3511. GAS PRESSURE (1946) — C VIII JamH
(Air Age Physics--Fluids)
65 frames.
Compressibility of gases as compared to liquids. Expansibility of gases. Everyday examples and applications. Boyle's experiment. Boyle's law. Problems.

3512. GASKETS (1942) — A VI 1 JamH
(Aircraft Engine Mechanics Series)
43 frames.
Definition and purpose of gaskets. Uses and examples. Jobs done which determine gasket materials for asbestos, copper bound, rubber, fiber, lead, cork vellumoid. Methods of preparing surfaces for gaskets. Making gasket patterns. Cutting gaskets. Emergency gaskets. Precautions to follow in fitting gaskets.

3513. GAUGES AND WIRING (1952) C VIII
(Automotive Mechanics, Set I) McG-H
36 frames.
Various indicating devices in automobiles. Master ammeter (charge indicator). Types (balancing coil and thermostatic) of other indicating devices (fuel, oil-pressure, engine temperature). Wiring harness; color code identification of leads.

3514. GENERAL AND SUBSIDIARY LEDGERS (1949) A VI 3 McG-H
(Accounting Series)
45 frames.
How posting in business with many accounts may be assigned to more than one person through use of subsidiary ledgers. Postings from journals to ledgers, including controlling accounts, in recording (1) sales on account, (2) purchases on account, (3) cash receipts from customers, (4) cash disbursements to creditors, (5) miscellaneous transactions with customers and creditors, and (6) bracket or splitfolio entries.

3515. GENERATOR, THE (1941) A VI 1
(Automotive Mechanical Training Series--Electrical System) JamH
108 frames.
General principles, construction. What generator does.

3516. GENERATOR, THE (1941) C VIII
(Basic Electricity Series) JamH
77 frames.
Principles of generator. Types. Generating direct and alternating current.

3517. GENERATOR REGULATOR, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Servicing the Electrical System)
77 frames.
Complete checks and adjustments on the 1940 and 1941 generator regulator.

3518. GENERATOR-OUTPUT REGULATORS (1952) C VIII McG-H
(Automotive Mechanics, Set II)
54 frames.
Construction and operation of cutout relay and various electromagnetic devices or switches used to control generator output; step-voltage controls, vibrating voltage regulators, current regulators or limiters. Two systems of connecting resistance into generator field to produce control; methods of temperature compensation.

3519. GENERATORS (1952) C VIII
(Automotive Mechanics, Set II) McG-H
30 frames.
Starting with induction of electric current in conductor moved through magnetic field, complete picture presented of generator construction and operation. Armatures and fields described; commutation; third-brush generators; shunt generators.

3520. GEOMETRIC CONSTRUCTION (1942) A VI 1 JamH
(Aircraft Mechanics Series)
76 frames.
Part I: Material and tools; correct use. How to draw perpendicular bisector to base line. Dropping perpendicular from prick punch mark. Bisecting angle. Drawing perpendicular at end of line. Drawing parallel line. Layout of fillets between intersecting lines.
Part II: Laying out fillets between line and circle or arc. Duplicating angle with compass and straight edge. Dividing line. Laying out angles with protractor.

3521. GEOMETRIC FIGURES (1951) C VII 3
(Mathematics, Set I) McG-H
29 frames.
Carpenter's square used to explain concept of right angle; wheel used to explain geometric functions of circle; cylinders and pistons of gasoline engine used to present abstraction of cylinder form.

3522. GEORGE GRAY (Disgruntled, Insubordinate Employee) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
George has worked hard for 23 years, can do most of jobs in department, hasn't had raise in over a year; asks for increase. His supervisor compelled to refuse it. George becomes disgruntled, careless, lacks interest in job. Elected union steward, he finds ways to make trouble. When asked to trade jobs with another man he refuses and is fired by supervisor who makes full report to plant manager. Later, George goes to plant manager with his story, asks for job back.

3523. GEORGE WASHINGTON, THE FARMER (No. 277) (1932) A IX 1 USDA
74 frames.
Phases of George Washington's early life; his home surroundings as a country gentleman.

3524. GERMS TAKE POT LUCK (1945) A II 3 USPHS
(Our Health Is in Your Hands Series)
Sound; 15 min. **
How germs cause disease; how diseases may be spread (particularly in restaurants), how restaurant employees can do their part toward protecting health of nation by following correct sanitation practices.

3525. GETTING ALONG TOGETHER IN A TROOP (1952) A I 5e GScout
56 frames; color. (1)
Simple principles of helping girls in a troop adjust to each other and to the troop.

3526. GETTING IT DONE (1948) A VI 1
(Supervisor Training Series) GMILLS
Sound: 11 min. **
Mechanics of supervisor's job; his responsibilities, to whom he is responsible; how to get job done right.

3527. GETTING READY FOR BED (1946) A VI 2 POP
(A Day with Bobby and Ellen Series)
40 frames.
Emphasizing importance to children of quiet games before bedtime; importance of sleep. Proper disposal of day clothes; of soiled clothes. Preparation for next day: proper washup, tooth brushing. Ventilation. Need for happy home atmosphere.

3528. GETTING READY FOR SCHOOL (1946) A VI 2 POP
(A Day with Bobby and Ellen Series)
36 frames.
Personal cleanliness; good breakfast; suitable clothing. Safety precautions at home and on way to school. Cheerfulness; obedience.

3529. GETTING THAT RAISE (1951) A VI 1 McG-H
(Business Etiquette Series, Set II)
34 frames.
How to take stock of one's self; when to approach the boss; how to follow up interview.

3530. GIANT HANDS OF INDUSTRY (1944) A II 7c NSC
Sound; 15 min. *
Two main causes of crane accidents; failure to use correct hand signals, failure to keep in clear. Standard hand signals and safety tips.

3531. GINS AND GINNING (No. 513) (1938) D I 3 USDA
56 frames.
Progressive improvements in ginning devices from earliest times; how modern ginning, which involves drying, extracting, cleaning, affects appearance and market value.

3532. GIOTTO'S LIFE OF CHRIST (1950) E VIII LIFE
Life of Christ based on New Testament and Apocrypha as depicted in Giotto's frescoes in the Arena Chapel.

3533. GOLDEN SECRET (1947) D I 1 CAS
50 frames; color.
Advantages of soil conservation presented as a fairy story for small children.

3534. GRAPH USES (1943) C VII 4
(Light on Mathematics--Graphs) JamH
53 frames.
How to develop and use graphs in everyday activities. Graphs in their relationship to formulas and equations as device for giving facts at glance.

3535. GRASSHOPPERS AND THEIR CONTROL (No. 360) (1935) D I 4 USDA
41 frames.
Several kinds of common grasshoppers; stages of their incomplete life cycle; examples of damage. The insect controlled by natural enemies and by poisoning with a prepared bait.

3536. GRAVITATION (1943) C VIII
(Air Age Physics--Mechanics) JamH
48 frames.
Attraction of earth for bodies on earth. Gravitation as universal attraction. Force of attraction. Units of force, dyne and poundal. Acceleration due to gravity. Falling bodies. Center of gravity. Torque and introduction to moments.

3537. GRINDING AND SHARPENING (1942) A VI 1 JamH
(Aviation Metalsmiths Series)
17 frames.
Proper methods of sharpening tools on electric grinders. Safety precautions. Sharpening twist drills. Checking drill angles with drill gauge.

3538. GRINDING MACHINES (1941) A VI 1
(Introduction to Machining Series) JamH
52 frames.
What grinders and grinding wheels are. What can be done with them. Types of abrasives and wheels.

3539. GROUP LIFE FOR THE PRE-SCHOOL CHILD (1949) A I 1 NYFL
46 frames.
Live-action shots of children in Bank Street Nursery School (New York City) to illustrate methods in child care.

3540. GROUPING SYMBOLS AND ORDER OF OPERATIONS (1951) C VII McG-H
(Mathematics, Set I)
34 frames.
How use of symbols makes clear the proper order of operations in problem solving. Abstract and concrete numbers defined; rules for their use.

3541. GUARD DUTY (1945) A II 7c
(Safety Management for Foremen) NSC
Sound; 20 min. *
Effective guards for common power machines; foremen's responsibility to see that these guards are kept in place.

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3542. HAND AND POWER HACK SAWS (1941) A VI 1 JamH
(Bench Work)
60 frames.
Sawing various metals. Selection of speeds and feeds.

3543. HAND TOOLS (1941) A VI 1
(Bench Work) JamH
78 frames.
Description of hand tools. Use and care of hand tools for bench work.

3544. HAND TOOLS FOR FABRIC WORK (1942) A VI 1 JamH
(Aircraft Mechanics Series)
56 frames.
Tools used; explanation of each. Proper use and care of pocket knife, shears (pinking and standard), picking machine, needles (short, straight needles, curved needles, and long ribstitching needles), brushes for doping grommets and dies.

3545. HAND TOOLS: HAMMERS--SAWS (1944) A VI 1 JamH
(Wood Shop--Woodworking Tools and Machines)
67 frames.
Selecting, carrying and arranging tools at the woodwork bench. Safe use of coping saws. Handsaws. Hammers.

3546. HARBOR, THE (1949) B V 2 YAF
(Ships and Harbor Series)
35 frames.
Function of large seaport: terminal for water-borne passenger liners and freighters. How passenger liner enters harbor; duties performed by harbor pilot; how members of passengers and crew are checked through quarantine, immigration service, customs. Liner docked by tugs, inspected, fumigated. How harbor is equipped to load and unload ship's cargo; repair and maintenance services; facilities for seaplanes and private boats; guarding harbor and keeping channels clear.

3547. HARRY CAREY A VI 1 McG-H
(Supervisory Responsibility) (1949)
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
At 60, Harry, general foreman, has been with company 20 years, frequently goes to assistant plant manager for decisions; is by-passed in daily work. Health fails. Harry tells story of anxiety about being by-passed by men above and below him to friend in personnel department, but asks him to keep it in confidence.

3548. HEALTH AND SAFETY (No. 18) (1951) A VI 2 CurrF
232 frames; color.
Ten strips on individual responsibility of child to cooperate with community in everyday health and safety situations, as follows: (145) Keeping Ourselves Healthy; (146) Food for Health; (147) Controlling Germs; (148) Safety To and From School; (149) Safety at School; (150) Safety in the Playground; (151) Safety at Home; (152) Safety in the Summer; (153) Bicycle Safety; (154) Playing in City Streets. For young children.

3549. HEAT EXPANSION (1948) C VIII JamH
(Air Age Physics--Heat)
78 frames.
Why heat makes matter expand. Expansion of metals, concrete, glass, liquids, Importance of heat expansion. Expansion characteristics of metals and other materials. Useful applications of expansion.

3550. HEAT TRANSFER (1948) C VIII JamH
(Air Age Physics--Heat)
72 frames.
Conduction. Ability of various materials to conduct heat. Preventing transfer of heat. Convection. Examples of heat transfer by convection. Radiation. Applications of radiant heat.

3551. HEAT WHERE YOU WANT IT (1948) A VI 1 GE
Sound; 30 min. **
Various types of industrial heaters; their applications: to heat liquids, surfaces, process air, pipelines, and to melt metals. Heaters cast-in, located in grooves, inserted into drilled holes, wrapped around, clamped on, spaced away. Tubular heaters.

3552. HELPFULNESS (1946) A VI 1 JamH
(Behind the Counter, No. 3)
Sound: 10 min.
Importance of helping customers get what they want, at time of sale and in service after sale. How to use helpfulness in suggestive selling to assure customer's return.

3553. HELPING CHILDREN DISCOVER ARITHMETIC (1951) C VII 1 Wayne
16 min.
How "discovery" method may be used by elementary teachers. Average third grade class shown from introduction of an arithmetic process new to them (borrowing in subtraction) to point where pupils understand and are able to work problems related to process. Four consecutive daily arithmetic periods pictured in detail.

3554. HELPING THE BIRDS (1946) C II JamH
(Basic Bird Study)
81 frames.
Why birds need help; how they can be helped; bird houses.

3555. HERITAGE OF THE MAYA (1949) A IX 2 LIFE
46 frames; color.
Photographic essay on the Maya: summary of Maya society based on work of late Dr. Sylvanus G. Morley. Established fact and logical conjecture concerning the rise, organization, decline of Maya civilization.

3556. HESSIAN FLY AND ITS CONTROL, THE (No. 407) (1947) D I 4 USDA
33 frames.
History and life habits of the Hessian fly; measures for its control.

3557. HIDDEN VALUES IN HYBRID SEEDS (1944) — D I 1 DeK
94 frames; color; silent.**
Rigid standards observed in producing improved hybrid seed corn from pure inbred stock.

3558. HINGE FITTING (1942) — A VI 1 JamH
(Aviation Metalsmiths Series)
22 frames.
Making fittings and bending to definite shapes. Use of bending blocks.

3559. HISTORY AND DEVELOPMENT OF AGRICULTURAL IMPLEMENTS AND MACHINERY (No. 335) (1942) — D I 3 USDA
54 frames.
History and development of some farm implements and machinery used in American agriculture, from before 1850 to early part of twentieth century: plows, cultivators, planters, seeders, grain harvesters, threshing machines.

3560. HISTORY OF AIR TRANSPORTATION (1946) — B V 3 YAF
(Transportation and Communication Series)
42 frames.
Development of air transportation, from man's early efforts to imitate birds in flight to present-day achievement.

3561. HISTORY OF AIR TRANSPORTATION (1947) — B V 3 SVE
(Transportation Series)
70 frames.
Air transportation from commencement to present phase (huge, speedy stratoliners).

3562. HISTORY OF COMMUNICATION (1946) — B VI 4 YAF
(Transportation and Communication Series)
48 frames.
Man's progress in communications, from early sign language through modern developments in radio and television; how man has become able to communicate almost instantly with anyone else in world.

3563. HISTORY OF LAND TRANSPORTATION (1946) — B V 1 YAF
(Transportation and Communication Series)
48 frames.
How man has traveled on land, from beginning of civilization to present time; how great inventions have decreased travel time and provided man with wider knowledge of world.

3564. HISTORY OF WATER TRANSPORTATION (1946) — B V 2 YAF
(Transportation and Communication Series)
41 frames.
How man has traveled on water through the ages; how he has put his great inventions to work to overcome geographical barriers of rivers, lakes and oceans.

3565. HOG HOUSES AND EQUIPMENT (No. 53) (1940) — D I 2 USDA
30 frames.
A-type and box-type houses, loading chutes, feeders, and other equipment and their construction.

3566. HOME-GROWN PLANTS FOR TRANSPLANTING (No. 656) (1945) — D I 3 USDA
37 frames.
How to grow plants for setting out. Preparing soil, putting it in boxes, treating seed, planting seed, caring for young plants, transferring them to flats, cups, and pots; setting them out.

3567. HOPPY, THE RABBIT (1950) — A IV 2 JamH
(Animal Stories Series)
27 frames; color.
Hoppy, an Easter present to a little girl, becomes good friends with her cat who proves bravery and loyalty by saving the rabbit from disaster.

3568. HORSE, THE (1947) — C II CAS
(Animal Series)
36 frames; sepia.
Man's use of horse through the ages; how the horse served man in ancient Rome; in Middle Ages; in settlement of the United States. Trained horses; farm horses.

3569. HORSE BOTS AND HOW TO FIGHT THEM (No. 405) (1936) — D I 4 USDA
39 frames.
Three kinds of botflies; their life cycles. Horses best protected from flies and bots controlled through community action.

3570. HOTEL OCCUPATIONS (1942) — A VI 5 MAHNKE
60 frames.
Variety of employment in hotel occupations, including clerical and personal service; types of engineers, maintenance men, chefs and apprentices. Jobs not observed by hotel guests.

3571. HOUSEFLY AND ITS CONTROL, THE (No. 681) (1947) — D I 4 USDA
34 frames.
Ways and means of reducing number of flies by eliminating breeding places and destroying insects and larvae by modern chemical insecticides.

3572. HOUSING TRENDS (1950) — A III 1 NAREB
64 frames; color.
Trends in housing in several major cities in various sections of the United States since turn of century.

3573. HOW ANIMALS GET THEIR FOOD (No. 57) (1951) — C II, CurrF
150 frames; also color.
Six strips on how familiar and unfamiliar mammals, birds, fish, etc. get their food in different environments; details of food-getting adaptations and behavior; as follows: (452) How Mammals Get Their Food; (453) How Birds Get Their Food; (454) How Reptiles Get Their Food; (455) How Amphibians Get Their Food; (456) How Fish Get Their Food; (457) How Insects Get Their Food.

3574. HOW BIG A HANDICAP? (1948) — A II 6, PAC
45 frames.
Story of a happy little girl no different from others except that once in a while she has an epileptic seizure. How she grows from babyhood through college.

3575. HOW BIRDS SERVE MAN (1946) (Basic Bird Study) — C II, JamH
67 frames.
Birds destroy insects; other ways in which they serve man.

3576. HOW FOOD IS DIGESTED (1949) (Food and Nutrition Series) — C II, POP
50 frames.
How mouth, esophagus, gall bladder, liver, stomach, pancreas and intestines, each contributes to digestion. How body uses digested food. Constipation explained. Use of water as a drink. When and how to eat for best results.

3577. HOW FREE TRADE UNIONS SETTLE GRIEVANCES (1952) — A I 5a, FifoW
45 frames; color.
How to set up machinery for settling grievances; duties and responsibilities of a shop stewart; step-by-step account of settlement of a grievance; part played by arbitrators.

3578. HOW LIFE INSURANCE BEGAN (1951) — A IX 1, ILI
43 frames; color.
How man's early efforts to overcome danger and uncertainty led to modern life insurance; describes English "friendly societies"; spread of life insurance to United States; agent system; liberalization of policies.

3579. HOW MAN HAS LEARNED TO SHELTER HIMSELF — A III 1, POP
40 frames.
Man's experience in procuring essential protection against weather, etc.

3580. HOW MAN HAS MASTERED FIRE (1948) (History of Fire) — A IV 2, POP
40 frames.
Primitive and modern ways of controlling fire. For young children.

3581. HOW MESSAGES ARE DELIVERED (1947) (Community Helpers Series) — B VI, POP
48 frames.
Services of postman. Telephone for fast communication; how to use. Communication by radio, press, telegraph.

3582. HOW PLANTS LIVE AND GROW (1946) (On the Farm with Tom and Susan Series) — C III, POP
36 frames.
Soil; preparation for planting. Seeds. Parts of a plant; its need for food and water. Uses of plants as food for men and animals.

3583. HOW PUPILS AND TEACHERS PLAN TOGETHER (1952) — A VI 3, Wayne
48 frames.
Principles of teacher-pupil planning. Variety of ways in which method is conceived; how one teacher practices joint planning with pupils.

3584. HOW ROCKS ARE FORMED (1947) (Our Earth Series) — C VI, JamH
66 frames.
Igneous, sedimentary, and metamorphic rocks; how they are made.

3585. HOW TO CONDUCT A UNION MEETING (1952) — A I 5a, FifoW
44 frames; color.
How to call a meeting to order; how officers make reports; how old and new business is handled; how nominations are made; how votes are taken; what committees do.

3586. HOW TO STUDY (No. 50) (1951) — A IV 5, CurrF
76 frames; color.
Three strips; desirable study habits indicated (as unsupervised, independent work on assignments becomes important); organization of time and effort emphasized; as follows: (402) Doing an Assignment; (403) Doing Homework; (404) Finding Information. For children.

3587. HOW UNIONS AND EMPLOYERS BARGAIN TOGETHER (1952) — A I 5a, FifoW
45 frames; color.
How to set up bargaining machinery; how meetings between workers and employers are conducted; how to draw up contracts; responsibilities of both workers and employers.

3588. HOW UNIONS BUILD A BETTER LIFE (1952) — A I 5a, FifoW
51 frames; color.
How unions help members obtain better food, better housing, medical care, education and political rights. Describes step-by-step procedure for setting up a buying club and its development into a cooperative.

3589. HOW TO USE AN ENCYCLOPEDIA (1948) — A IV 5 POP
50 frames.
When and how to consult encyclopedia. What kinds of information to seek; alphabetical order; proper names in directory style; guide words; sub-topics; cross references; listings of related subjects; picture captions. How to use these words; how to gain most from pictures, charts, diagrams and tables.

3590. HOW WE ARE CLOTHED (1949) — A III 2 POP
(Living Together in the United States of America Series)
45 frames.
Material in cotton dress traced from cotton plant through picking, ginning, spinning, weaving, and manufacture of cloth into garment. Rayon. Wool. How clothing is made in large factories.

3591. HOW WE GET OUR ALUMINUM (1950) — A VII YAF
(Products and Industries Series, Set No. 1)
44 frames.
How, cheap production methods having been developed, aluminum is made from bauxite; the ore; refining process; alumina; reduction to metal; how processed and fabricated.

3592. HOW WE GET OUR CEMENT (1950) — A VII YAF
(Products and Industries Series, Set No. 3)
37 frames.
Importance of concrete. How at cement plant, limestone and other raw materials are ground and mixed, fused by heat inside immense kiln; cooled and ground into fine powder called portland cement, used chiefly to make concrete.

3593. HOW WE GET OUR COAL (1950) — A VII YAF
(Products and Industries Series, Set No. 1)
42 frames.
Importance of coal as fuel; kinds; how mined, cleaned, sorted, distributed.

3594. HOW WE GET OUR COFFEE (1950) — A VII YAF
(Products and Industries Series, Set No. 2)
42 frames.
How coffee is grown, picked, processed, shipped, roasted, blended and packaged for retail.

3595. HOW WE GET OUR COPPER (1950) — A VII YAF
(Products and Industries Series, Set No. 1)
40 frames
Primitive use of copper in ornaments; qualities of copper; how mined, crushed, concentrated, purified; plate copper; alloys, etc.

3596. HOW WE GET OUR COTTON (1950) — A VII YAF
(Products and Industries Series, Set No. 1)
43 frames.
Usefulness of cotton; how grown, picked, ginned, baled, spun, woven, bleached, dyed, printed, etc.; by-products.

3597. HOW WE GET OUR ELECTRICITY (1950) — A VII YAF
(Products and Industries Series, Set No. 3)
37 frames.
How electricity is generated in steam plants; steam used to power huge generators which produce electricty. Hydro-electric plants. Importance of electricity.

3598. HOW WE GET OUR GAS (1950) — A VII YAF
(Products and Industries Series, No. 3)
38 frames.
Gas as useful fuel; made from coal or from coke and oil; stored in holders, ready for use. How natural gas is obtained from wells; pumped through pipe lines to distant communities. Gas used in industry and in homes for heating and cooking.

3599. HOW WE GET OUR GLASS (1950) — A VII YAF
(Products and Industries Series, Set No. 2)
40 frames.
Uses of glass. How fine glass products are still blown. How glass is now produced mechanically on large scale. Raw materials, how melted, refined, annealed. Fiber glass; glass blocks.

3600. HOW WE GET OUR IRON AND STEEL (1950) — A VII YAF
(Products and Industries Series, No. 1)
38 frames.
Importance of steel; iron mining; open pits, transportation of ore, mills, blast furnaces, "pigs", foundry work, etc.; manufacture of steel.

3601. HOW WE GET OUR LEATHER (1950) — A VII YAF
(Products and Industries Series, Set No. 3)
40 frames.
How, arriving at tannery, skins and hides are prepared for tanning, chemically treated and dried, finished. Important industrial and consumer uses of finished leather.

3602. HOW WE GET OUR OIL (1950) — A VII YAF
(Products and Industries Series, Set No. 2)
44 frames.
How oil is used; how located; drilling; how oil is piped or trucked from well to refinery; separation into many oil products.

3603. HOW WE GET OUR PAPER (1950) A VII YAF
(Products and Industries Series, Set No. 2)
40 frames.
Harvesting of trees, operation of pulp mill. Paper from rags. How wood pulp is manufactured into paper of various kinds.

3604. HOW WE GET OUR PLASTICS (1950) A VII YAF
(Products and Industries Series, Set No. 2)
44 frames.
How raw materials are converted into moulding compounds, shipped to manufacturers as pellets, powders, flakes, tablets, sheets, rods or tubes for manufacture. Thermosetting materials; thermoplastic materials. How molded or extruded into finished products.

3605. HOW WE GET OUR RAYON (1950) A VII YAF
(Products and Industries Series, Set No. 3)
40 frames.
Rayon made by viscose and acetate processes. Basic raw material, cellulose, chemically treated, converted into liquid; spun into textile filaments by chemical process; filaments twisted into yarn and woven into fabrics from which finished articles are made.

3606. HOW WE GET OUR RUBBER (1950) A VII YAF
(Products and Industries Series, Set No. 1)
44 frames.
Rubber production on plantations; latex, collection stations, shipment; manufacturing plants; synthetic rubber; vulcanization, etc.

3607. HOW WE GET OUR SUGAR (1950) A VII YAF
(Products and Industries Series, Set No. 2)
44 frames.
How sugar cane and beets are grown, harvested, crushed, concentrated, refined, packaged.

3608. HOW WE GET OUR WOOL (1950) A VII YAF
(Products and Industries Series, Set No. 3)
43 frames.
How sheep are sheared; wool shipped in bales, to textile mills; after processing, spun into yarn and woven into fabrics or knitted to make garments such as sweaters.

3609. HOW WE THINK OUR EARTH CAME TO BE (1947) C I JamH
(Our Earth Series)
62 frames.
Factors scientists consider in arriving at theories of origin of earth. How these theories developed.

3610. HOW YOUR EARS WORK (1950) A II 2 JamH
(Health Adventures, Part I (The Head))
61 frames; color.
Sound defined; how sounds are heard; how ears may be helped to do their work.

3611. HUMAN FACTOR, THE (1948) A VI 1 GMILLS
(Supervisor Training Series)
Sound: 11 min. **
Way a supervisor should handle human side of job; how to earn respect and confidence. How success or failure hangs on supervisor's ability to get results through people by understanding, leading, developing them.

3612. HUMIDITY (1948) C VIII JamH
(Air Age Physics--Heat)
86 frames.
Water vapor in air. Visualization of relationship between given weight of air and weight of water vapor in air. Concept of relative humidity. Air conditioning: how air is warmed and cooled.

3613. HUNGER SIGNS IN CORN (1944) D I 1 DeK
58 frames; color; silent. **
Deficiency symptoms in corn indicating lack of proper soil nutrients; amount of nitrogen, phosphorus, potassium, etc., the corn plant needs.

3614. HYDRAULIC BRAKES (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Mobility Factors)
62 frames.
Hydraulic principle; use in actuating brake shoes.

3615. HYDRAULIC BRAKES (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Servicing the Mobility Factors) 131 frames.
Bleeding the brake system; adjustment, brake shoe replacement, main cylinder overhaul, wheel cylinder overhaul, replacing hose, pipes, connectors, and cables.

3616. HYDRAULIC MECHANISMS (1942) A VI 1 JamH
(Aircraft Mechanics Series)
49 frames.
Principles of hydraulic system. Where and how hydraulic systems are used in airplane. The "plumbing" system of airplane. How to trace it. How to inspect for and check pressure in hydraulic system. How hydraulic system contributes to fast and safe flying.

3617. HYDRAULIC STRUTS (1942) A VI 1 JamH
(Aircraft Mechanics Series)
45 frames.
Need, use and functions of hydraulic struts or shock absorbers. Operating principles of hydraulic mechanism. Construction and operation of hydraulic shock absorber in simplified form. Construction and operation of airplane

hydraulic strut. Coiled spring-type strut. Combination pneumatic and hydraulic strut.

3618. HYPOID REAR AXLE, THE (1941) (Automotive Mechanical Training Series--Servicing Power Transmission Units) 124 frames. A VI 1 JamH
Complete overhauling instructions for both passenger car and truck hypoid rear axles.

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3619. I LIVE IN THE CITY (1947) (Alice and Jerry Reading Series) 57 frames. A IX 1 SVE
Life in typical American city.

I LIVE IN THE COUNTRY (1947) (Alice and Jerry Reading Series) 57 frames. A IX 1 SVE
Life on typical American farm.

3620. I WANT TO LEARN (1942) (Informal Pointers for Teachers, No. 3) Sound: 22 min; or silent, 57 frames. A VI 1 JamH
How course information is "grooved in."

3621. IDEAL SECRETARY, THE (1951) (Business Etiquette, Set II) 37 frames. A VI 1 McG-H
What secretary's life is not; boss's ideal secretary. How young secretary can become efficient office assistant every employer wants to have.

3622. IF IT HAPPENS (1945) Sound; 20 min.* A II 7d NSC
What to do in case of accident on the road.

3623. IGNITION DISTRIBUTOR (1952) (Automotive Mechanics, Set II) 47 frames. C VIII McG-H
Function, construction, methods of driving, operation of distributor. Actions in primary circuit; in secondary circuit; methods of controlling spark advance. Purpose of centrifugal and vacuum advance; methods of securing these, including Ford full-vacuum-control system.

3624. IGNITION SYSTEM, THE (1952) (Automotive Mechanics, Set II) 38 frames. C VIII McG-H
Ignition coil, use and construction; operation by self-induction and mutual induction. Purpose and action of condenser and spark plugs; function of distributor contact points.

3625. IGNITION SYSTEM, THE (1941) (Automotive Mechanical Training Series--Fundamentals, Internal Combustion Engine) 70 frames. A VI 1 JamH
Construction and operation of coil, condenser, braker points, distributor, spark plugs.

3626. IGNITION SYSTEM, THE (1941) (Automotive Mechanical Training Series--Servicing the Electrical System) 65 frames. A VI 1 JamH
Progressive checking of each unit of ignition system to locate trouble spots.

3627. IGNITION TROUBLE (1941) (Automotive Mechanical Training Series--General Service) 116 frames. A VI 1 JamH
"Rule of thumb" checks for road trouble. Preventive maintenance checks with ignition testing instruments.

3628. IN HOT WATER (1945) (Our Health is in Your Hands Series) Sound; 15 min.** A II 3 USPHS
Correct way to wash, handle and store dishes. Hand dishwashing shown step by step; operation of single-tank dishwashing machine.

3629. INDIRECT MEASUREMENT (1951) (Mathematics, Set II) 38 frames. C VII McG-H
Typical procedures of surveyor. Use of trigonometry in taking sights around obstacles by solving hypotenuse of right triangle to determine unknown distance.

3630. INDUSTRIAL ELECTRONICS (1946) 1498 frames. C VIII GE
A course on industrial electronics for plant management and electrical and maintenance staffs: twelve filmstrips, each with record (16 in., 33 1/3 rpm), review booklets (25 in each kit), an instructor's guide and a carrying case, on (1) Harnessing the Electron; (2) Electronic Tubes as Rectifiers; (3) Grid Control of Electronic Tubes; (4) Fundamentals of Electricity, Part 1; (5) Fundamentals of Electricity, Part 2; (6) Electronic Relay Systems; (7) Electronic Rectifier Equipment; (8) Thy-Mo-Trol (Thratron Motor Control); (9) The Electronic Control of A-C Power; (10) Electronic Frequency Changing; (11) Photoelectric Systems; (12) Electronics--Today and Tomorrow.

3631. INSECT PESTS AND DISEASE (1946) (Good Health Series) 46 frames. A II 1r YAF
Five main insect pests that endanger human health; measures to control and eradicate them.

Insect control and eradication, the problem of every person.

3632. INSECT PESTS OF GARDEN VEGETABLES AND THEIR CONTROL (No. 503) (1938) — D I 4 USDA
63 frames.
Life stages and plant injury of many common insects of two general types classified according to mouth parts. How to control by cleaning up crop refuse promptly, spraying and dusting.

3633. INSECT PESTS OF VEGETABLES (No. C-6) (1949) — D I 4 USDA
35 frames; color.
Some common insect pests of vegetables; suggestions for their control.

3634. INSECTS, THEIR GROWTH AND STRUCTURE (No. 399) (1936) — D I 4 USDA
44 frames.
Types and kinds of insects; external, internal anatomy in general; some life cycles.

3635. INSPECTING THE EXTERNAL FUEL SYSTEM (1942) — A VI 1 JamH
(Aircraft Engine Mechanics Series)
51 frames.
Step-by-step procedure for inspecting pressure fuel systems. Use of red tag. Counting tools and wiping cloths. Cleaning tubing with wiping cloth. Checking for cracks, leaks, twists, kinks, too much rigidity. Checking vibration connections, fuel line supports. Inspecting for chafing, hardened copper pipe, feed lines to primer, shut-off cocks, drain cocks, strainers, filler caps, air breather lines, fuel and pressure gauges, primer, by-pass valve, hand pump, carburetor.

3636. INSPECTION BEFORE FABRIC COVERING (1942) — A VI 1 JamH
(Aircraft Mechanics Series)
71 frames.
Need for inspection of drag tubes, controls, electrical system, minor structures and fabric surfaces; how to check each in wings, tail assembly, ailerons, fuselage. Recheck.

3637. INTERESTING THINGS ABOUT THE PLANETS (1947) — C I JamH
(The Sky Series)
62 frames.
Possibilities of life on other planets; comparisons of length of days and years with those of earth; facts and legends about discovery of planets.

3638. INTERNAL COMBUSTION ENGINES (1948) — C VIII JamH
(Air Age Physics--Heat)
81 frames.
Theories and uses of internal combustion engines. Types of heat engines. Basic diagrams of gas turbines, turbo-superchargers, jet propulsion, rocket power, reaction motors, duct engine.

3639. INTERNALLY THREADING A PLATE--MAKING A STUD--EXTRACTING A BROKEN STUD (1942) — A VI 1 JamH
(Aviation Metalsmiths Series)
44 frames.
Drilling holes for tapped threads. Proper use of complete tap set. Cutting external threads. Removal of broken studs without injuring surrounding parts.

3640. INTERNATIONAL DATE LINE (1948) — C V POP
45 frames.
Abstract concept of international date line; problems of teaching it.

3641. INTERNATIONAL TRADE (1950) — B IV McG-H
(Economics Series)
36 frames.
Theory of comparative advantage explaining specialization in international trade; foreign exchange rate; various items to be balanced in international trade. Effects of international trade on domestic economy. Problems arising from restrictive trade policies.

3642. INTRODUCTION TO WELDING, AN (1942) — A VI 1 Jam-H
(Oxyacetylene Welding--Further Practice--Steel)
64 frames.
Oxyhydrogen and oxyacetylene welding. Pressure gauges and torches. Safety.

3643. INTRODUCTIONS IN BUSINESS (1951) — A VI 1 McG-H
(Business Etiquette Series, Set II)
35 frames.
Whom to present to whom and how to do it.

3644. INVISIBLE RED INK (1945) — A II 7c NSC
Sound; 20 min.*
An appeal to business management to recognize the importance of planned safety program, not only for humanitarian reasons, but from actual dollars and cents standpoint.

3645. IONIZATION (1949) — C IV McG-H
(Chemistry Series)
42 frames.
Various characteristic properties of acids, bases and salts, explained in terms of theory of ions. Formation of a salt explained in terms of the ionization theory. Ionic salts. Other types of substances which appear to be formed through sharing of electron pairs; covalent compounds.

3646. IRRIGATION--LIFEBLOOD OF THE WEST (No. 680) (1947) — D I 1 USDA
56 frames.
History and development of agriculture in the West (U.S.A.); its value in converting arid and semiarid land into prosperous and productive farms.

3647. IT'S DONE WITH MIRRORS (1947) A VII MirroM
Sound; 21 min.; color.
Use of mirrors to enhance, beautify, decorate homes; various types of mirrors; manufacturing, including beveling, polishing, hand-grooving, applying silver nitrate in primary and secondary backing.

3648. IT'S YOUR HOME--PLAN IT SAFELY (1946) A II 7a NSC
Sound; 20 min.*
How to build safety into the home: stairs, kitchens, closets, plumbing, heating and electricity.

J

3649. JACKHAMMER SAFETY (1949) A II 7c NSC
38 frames.*
Importance of keeping jackhammer in good condition; of using protective equipment. Standard safe practices in drilling and blasting.

3650. JAKE DILLER (Physically Handicapped) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Jake, 38-year-old college graduate suffers from nervous affliction, was hired during war. Although a member of production crew, Jake sometimes helps out in clerical work. When the production crew is put on incentive, other members ask supervisor to remove Jake because his affliction slows operation. Jake agrees to divide his time between clerical duties and janitor work. Two weeks later, he refuses to do any more janitor work; unable to employ him full-time in a clerical job, supervisor tries unsuccessfully to find a clerical job for him in another department. Because Jake has done his best considering his handicap, his supervisor hates to dismiss him.

3651. JERRY COOPER (A.W.O.L.) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Any failure in the batch mixing machine operated by Jerry, a good employee with 15 years of company service, causes stoppage in entire production line. Is repeatedly AWOL; insists he cannot report (no means of communication). Supervisor is prepared to fire Jerry but on the day Jerry returns only availabe substitute for Jerry's job is himself absent.

3652. JET PUMPS, SIPHONS, ROTATING PUMPS (1946) C VIII JamH
(Air Age of Physics--Fluids)
91 frames.
Atomizer. Ejectors. Aspirator. Siphon. Hydraulic ram. Propeller-type fans and blowers. Centrifugal pump and centrifugal blower. Vane pump. Gear pump. Eccentric pump. Rotating fluid devices for performing work.

3653. JIG SAW (1944) A VI 1 JamH
(Wood Shop--Woodworking Tools and Machines)
96 frames.
Introduction to the jig saw; names and functions of parts. Safe practices for setting up a jig saw. Safe practices for jig sawing.

3654. JIM HALSEY (Violation of Safety Rules) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound;3 min.
Jim and others operate scrap-breaking machine that occasionally jams up. To save time, men use their hands to remove jam without first stopping machine. Fearing serious accident, foreman brings matter up at production meeting. Plant manager specifies any recurrence is to result in immediate dismissal of employee. Decision is carefully explained to men. Two days later, foreman sees Jim, hard worker with company over 20 years, violate regulation.

3655. JIMMY BEATS RHEUMATIC FEVER (1945) A II 1 1 METL
80 frames.**
Story of eight year old boy's successful battle with rheumatic fever.

3656. JIMMY DIDN'T LISTEN (1946) A VI 2 S--M
(Child Cooperation and Self-Discipline Series)
26 frames.
Importance of listening to instructions and of putting materials away in proper place.

3657. JOE AND BOB (Poor Cooperation Between Supervisors) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Joe, a supervisor with 35 years of company service, goes to Department A to discover reason for delay in an order that is causing machines to stand idle in his department. Blames Bob, Department A foreman, in front of his employees and, as he leaves, threatens to report to boss.

3658. JOHN BEAVER (Tardy Supervisor) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
John, with company for 15 years, regarded as hardest working staff head in plant, is often from 15 to 30 minutes late in morning. Two members of John's staff coming in late, tell plant manager that though they are often few minutes late, they always arrive before their department head.

3659. JOINTER (1944) A VI 1
(Wood Shop--Woodworking Tools and Machines) JamH
83 frames.
Introduction to jointer. Names and functions of parts. Safe practices for setting up jointer. Safe practices for using jointer.

3660. JUDGING DAIRY CATTLE (1950) D I 2 POP
30 frames; color.
Examples of good points in dairy cattle for judging purposes; dairy cows and their milk records; various parts of Jersey bull and Guernsey bull illustrate good form; various aspects of good udders.

K

3661. KEEP 'EM ROLLING (1945) A II 7c
Sound; 15 min.* NSC
Precautions every railroad car man must take to protect himself and others from injury.

3662. KEEP IT CLEAN (1944) A II 7c
(Worker Training Course) NSC
Sound; 15 min.
Good industrial housekeeping practices demonstrated.

3663. KEEP YOUR HEAD (1947) A II 4d
Sound; 15 min.** ZurAm
Loss of self-control analyzed; causes (unreasoned anger, baseless fear). How they may be removed or lessened.

3664. KEEPING AN AQUARIUM (1948) C II JamH
(Water Life Series, No. 5)
70 frames.
Choosing, preparing, planting an aquarium; selection of suitable plants and animals. Caring for and watching aquarium.

3665. KINDERGARTEN AND YOUR CHILD (1951) A I 1 Wayne
40 frames.
Kindergarten objectives and methods; how parents can contribute toward child's adjustment to early school experiences.

3666. KINDS, PARTS, SAFETY (1946) A II 7c JamH
(Safe Practices in Metalworking--Engine Lathe).
70 frames.
Lathe work. Dressing safely. Avoiding injury.

3667. KINETIC MOLECULAR THEORY, THE (1949) C IV McG-H
(Chemistry Series)
59 frames.
Phenomena involving action of gases commonly observed. To explain facts and scientific laws derived from them, scientists make assumptions and develop theories. Assumptions of kinetic molecular theory described in detail. How used to explain Boyle's law; Gay-Lussac's (Charles') law. Also used to explain how matter changes from one state to another.

3668. KNEE-ACTION (1941) A VI 1
(Automotive Mechanical Training Series--Servicing the Mobility Factors) JamH
150 frames.
Part I: Removal and replacement of Dubonnet type knee-action unit used prior to 1939.
Part II: Disassembly and reassembly of unit itself after removal from car.
Part III: Disassembly, inspection, repair, and reassembly of 1939-1941 knee-action unit--not Dubonnet type.

3669. KNOW YOUR LAND (No. C-8) (1949) D I 1 USDA
45 frames; color.
Practical land classification; best land use and treatment for various areas of farm.

L

3670. LABOR EFFICIENCY ON THE FARM (No. 630) (1943) D I 3 USDA
48 frames.
How to make best use of worktime the year round. Planning to save time; and motion of men and equipment; to grow crops to yield high. How to handle labor intelligently.

3671. LABORATORY GLASSWARE (1945) A II 7c NSC
Sound; 10 min.*
Precautions to observe in handling glass to avoid laboratory accidents caused by improper or careless handling.

3672. LANDING GEARS AND BRAKES (1942) A VI 1 JamH
(Aircraft Mechanics Series)
66 frames.
Use of landing gear and brake working together. How brake operates. Principle of friction governing braking action. Knowledge useful in servicing aircraft brakes.

3673. LANGUAGE ARTS (No. 25) (1951) A IV 5 CurrF
109 frames; color.
Four strips on parts of sentence, origin of words, as follows: (197) The Sentence; (198) Meet a Noun; (199) Pierre Learns English; (200) Stories Behind Words. For children.

3674. LARGE CITY AUDIO-VISUAL AIDS ORGANIZATION, THE (1949) A VI 3 YAF
(Audio-Visual Series)
44 frames.
How Newark, New Jersey, operates its audio-visual service.

3675. LARGER BARLEY PROFITS THROUGH SCAB AND BLIGHT CONTROL (No. 355) (1935) D I 4 USDA
48 frames.
Importance of barley crop. Blight diseases, their effect on various cereals; life story of causative fungi; effects on livestock of feeding blighted grain; control practices.

3676. LATHE: FACEPLATE TURNING--OTHER OPERATIONS (1944) A VI 1 JamH
(Wood Shop--Woodworking Tools and Machines)
74 frames.
Safe practices for setting up lathe for faceplate turning; for sanding and polishing; for drilling.

3677. LATHE: PARTS--SPINDLE TURNING (1944) A VI 1 JamH
(Wood Shop--Woodworking Tools and Machines)
86 frames.
Introduction to wood-turning lathe. Kinds of wood-turning lathes. Names and functions of parts. Safe practices for setting up lathe for spindle turning.

3678. LATHES (1941) A VI 1 JamH
(Introduction to Machining Series)
111 frames.
Part I: The lathe; its construction. Principal parts and functions. Holding work in lathe.
Part II: Operations performed on lathe: facing, straight turning, taper turning, drilling, boring, reaming, thread cutting, knurling. Care of lathes. Safety hints.

3679. LAYOUT TOOLS AND MEASURING INSTRUMENTS (1941) A VI 1 JamH
(Bench Work)
79 frames.
What layout work is. Tools used. Use and care of measuring intruments.

3680. LAYOUT WORK (1941) A VI 1 JamH
(Bench Work)
193 frames.
Part I: Importance of accurate layout work. Techniques used. Basic geometric constructions.
Part II: Special layout problems on actual work examples.

3681. LAZY BEAR CUB, THE (1950) A IV 2 JamH
(Animal Stories Series)
26 frames; color.
Of two baby bears brought from den by mother bear, one is lazy and does not want to learn to find his own food. An adventure reforms him.

3682. LEARN ABOUT ZIPPERS (1950) A III 2 SPOOL
76 frames; color.
Part I. How to put in skirt placket and neck opening zippers.
Part II. How to put in a dress zipper.
Detailed demonstration of each zipper application.

3683. LEARN AND LIVE (1944) A II 7c NSC
(Worker Training Course)
Sound; 15 min.*
Ten basic rules of industrial safety; how and why applied.

3684. LEARNING GOES ON (1952) A I 1 ACE
102 frames.
Part I: A Community Evening School. Activities available to adult citizens of small city in United States who feel need for additional formal education, vocational training, or cultural development.
Part II: The University and Community Groups. Adult learning activities carried on by public and private groups in typical small city in the United States.

3685. LEFTY LAWS (Incompetent Employee) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Lefty, 44 years old, with college degree and three years of law school, applies for machine setter's job. Placed in training, progresses slowly. Training completed, is transferred to night shift. Night inspector helps Lefty do his job. Lefty receives four times normal amount of training yet continues to make mistakes and waste material.

3686. LESSON PLAN, THE (1942) A VI 1 JamH
(Informal Pointers for Teachers, No. 4)
Sound: 22 min.; or silent, 59 frames.
Place and value of planned lessons in motivation; student participation and assignment.

3687. LET'S MAKE A POST OFFICE (1946) A IX 1 POP
(Storytelling and Social Studies)
38 frames; color.
How to mail letters; what the postoffice does; how mail is carried. For young children.

3688. LET'S REMEMBER WHAT WE SEE (1950) A IV 2 CAS
(Reading Readiness Series)
29 frames.
Roy draws figures which children are asked to remember and reproduce.

3689. LET'S TAKE A LOOK AT TEACHING (1951) A VI 5 Wayne
50 frames; also sound.
Overview of teaching; factors that make the profession highly desirable vocational choice.

3690. LIFE IN PONDS, LAKES AND STREAMS (1948) C II JamH
(Water Life Series, No. 1)
59 frames.
The world in the water; kinds of water plants; how water animals depend on plants. Importance of fresh-water plants.

3691. LIFE 100 YEARS AGO (No. 37) (1951) A IX 1 CurrF
258 frames; color.
Eight strips on basic way of life in a village community (U. S. A.) one hundred years ago (photographed in Farmers' Museum, Cooperstown, New York); compared with earlier and

later conditions, as follows: (294) The Village; (295) The Blacksmith; (296) The School; (297) The Store; (298) A Farm Kitchen; (299) Playtime; (300) Homespun Linen; (301) Solving Community Problems.

3692. LIFE THROUGH THE AGES (1947) C II
(General Biology Series) Macmil
49 frames.
Importance of fossils and the geologic record in understanding changing life forms of main geologic eras; fossil types and methods of fossilization; sequence of plant and animal life through Paleozoic Era; Mesozoic Era, dinosaurs; origin of mammals, rise during Cenozoic Era, appearance of man.

3693. LIFT AND DRAG (1942) A VI 1
(Aircraft Mechanics Series) JamH
71 frames.
Aerodynamics of airplane flight principles. Characteristics of air and air flow acting on wing. Definitions of wing parts. Principles of drag on airplane wing. How increased and decreased. Relation of lift to draft. Conditions influencing lift and drag. Wing, surface functions. Slots and their use. Principles of stalling.

3694. LIGHTHOUSE, THE (1949) B V 1
(Ships and Harbor Series) YAF
37 frames.
Purposes of lighthouses; different designs; distinctive signals; how lighthouses are operated. Beacon lights: construction and operation.

3695. LINE (1942) A VI 1
(Aircraft Mechanic Series) JamH
67 frames.
Difference between line and hawsers, rope, strand, thread in Navy vocabulary. How to coil line to keep it ready for service and to avoid kinking. How to protect line. How to tie useful and standard knots with line. How to practice use of line to gain experience rapidly.

3696. LIQUID PRESSURE (1946) C VIII
(Air Age Physics--Fluids) JamH
76 frames.
Pressure in liquids proportional to depth and density. Hydrostatic paradox. Liquids seek their own level. Applications--computing force and pressure problems.

3697. LITERATURE OF FREEDOM, THE (1947) A IX 1
(Our American Heritage Series) POP
44 frames.
Decisive crises as seen by great writers and thinkers; themes of famous literary works.

3698. LIVING IN A MACHINE AGE (1946) A II 7c
(Living Safely Series) YAF
42 frames.
How machine age has made world of today pleasant and interesting place in which to live. Many hazards the machine age has brought; old and new machines compared. Although machines have become safer there are still many accidental deaths in the United States each year.

3699. LOST DOG, THE (1946) A IV 2
(Storytelling and Social Studies) POP
40 frames; color.
How pet dog is lost, found, cared for, returned to little boy who lost him. For young children.

3700. LOST QUARTERS (1947) D I 2
Sound: 25 min. ** KRAFT
Damage, and financial loss to farmer, caused by mastitis; method of infection, means of prevention and treatment.

3701. LOUIS PASTEUR (1941) A IX 2
(Health Heroes Series) METL
54 frames. **
Life and achievements of Louis Pasteur.

3702. LUBRICATION (1939) D I 3
(Tractor Maintenance Film Kit) ETHYL
27 frames.
Purpose of lubrication; use of correct lubricant; important jobs of motor oils; how to insure proper performance through lubrication.

3703. LUNCH AND PLAY AT SCHOOL (1951) A IX 1
(At Home and School with Tom and Nancy Series) JamH
24 frames; color.
Tom and Nancy eat lunch at school cafeteria; after lunch clean-up; play on the playground (safety and sharing illustrated).

M

3704. MACHINE TECHNIQUE (1941) A VI 1
(Introduction to Machining Series) JamH
97 frames.
Part I: Cutting and "tool steels". Tool material requirements.
Part II: Explanation of feed and speed; importance. How to determine feed and speed. Cooling and lubricating fluids.

3705. MACHINE TOOLS (1941) A VI 1
(Introduction to Machining Series) JamH
53 frames.
Definition of machine tool. Five main divisions. General description of more important machine tools.

3706. MACHINIST, THE (1941) A VI 5
(Introduction to Machining Series) JamH
50 frames.
History of machining. Position of machinist in industry. Training required. Opportunities.

3707. MADAME CURIE AND THE STORY OF RADIUM (1946) (Health Heroes Series) 75 frames. ** — A IX 2 METL

Madame Curie's life; her devotion to scientific research; her achievements.

3708. MAGIC CAMERA, THE (1948) Sound; 15 min. ** — C II WestH

How human eyes work; kind of artificial light they need. Lens and retina of eye compared to lens and film of camera.

3709. MAGNETISM (1941) (Basic Electricity Series) 62 frames. — C VIII JamH

General properties and laws of magnets. Magnetic effects.

3710. MAGNETISM (1945) 42 frames. Also available in glass slides. ** — C VIII GE

Fundamentals of magnetism explained.

3711. MAGNETO IGNITION MAINTENANCE (1942) (Aircraft Engine Mechanics Series) 41 frames. — A VI 1 JamH

Testing spark plugs under pressure condition. Materials, equipment and tools necessary. Preparation. Procedure. Preparing accepted plugs for storage. Clean up after testing.

3712. MAGNETS (1949) (Elementary Science Series) 46 frames. — C VIII YAF

Simple facts about magnets and their behavior.

3713. MAINTAINING A SAFE SHOP (1945) (Wood Shop--Basic Shop Safety) 64 frames. — A II 7c JamH

Keeping aisles, floors, stairways safe. Disposal of wiping cloths. Cautions about nails. Disposal of scrap materials. Handling and storing materials. Moving heavy objects.

3714. MAINTENANCE OF STORAGE BATTERIES (1942) (Aircraft Engine Mechanics Series) 51 frames. — A VI 1 JamH

Definition and importance of storage battery maintenance. First step of proper installation. Inspection and preparations before installation. Handling instructions. Making proper connections. Periodic inspection and service. Hydrometer check. Electrolyte check. Weather conditions affecting service. Recharging procedure.

3715. MAJOR ASSEMBLIES AND DISASSEMBLIES (1942) (Aircraft Mechanics Series) 102 frames. — A VI 1 JamH

Part I: Practical hints for assembling and disassembling major parts of airplane. Some essential tools and equipment. Tail wheel assembly. Aft end of fuselage. Use of chain hoist for removal of main landing gear. Part II: Helpful tips for assembling center section, wings and tail group. Tools for job. Securing electrical conduits, bonding connections, and control connections in wings. Order of tail group assembly.

3716. MAJOR BODY REPAIRS (1941) (Automotive Mechanical Training Series--General Service and Sheet Metal Repair) 86 frames. — A VI 1 JamH

Measuring damaged body to square it up, roughing out inner framework, further roughing out, finish bumping operations.

3717. MAKE YOUR CHALK TALK (1942) (Informal Pointers for Teachers, No. 5) Sound: 22 min.; or silent, 57 frames. — A VI 1 JamH

How to talk to eye of student with chalk; blackboard drawing and freehand sketching.

3718. MAKING AND DRILLING RIVETED PATCH--HAND AND PNEUMATIC RIVETING--REMOVING RIVETS (Aviation Metalsmiths Series) (1942) 62 frames. — A VI 1 JamH

Laying out and making patches for repairing sheet metal structures. Use of straight shears. Drilling patches. Use of machine screws and rivet clamps. Hand riveting. Pneumatic, riveters. Removing rivets.

3719. MAKING FIELD TRIPS EFFECTIVE (1952) 46 frames. — A VI 3 Wayne

Techniques for planning field trips that will yield maximum benefits. Values and purposes of field trips.

3720. MAKING YOUR CHALK TEACH (1950) 47 frames. — A VI 3 Wayne

Limitations of blackboard; unique qualities which make it valuable teaching tool.

3721. MAN IN MANAGEMENT, THE (1942) Sound; 20 min. ** — A VI 3 CINBTC

Ways to promote good relationships between workers and supervisors. Responsibilities of department manager; how he can develop people and coordinate their abilities.

3722. MAN, MONEY, MANAGEMENT, MISUNDERSTANDING (1940) (Thoughts on Management Series) Sound; 15 min. — A VI 1 NatFORE

Parts men, money and management play in business; terminology and understanding; the executive function.

3723. MAN TO MAN RELATIONS (1940) — A VI 1 NatFORE
(Thoughts on Management Series)
Sound; 15 min.
What executive should know about his people; importance of his motives. Excuses. Importance of starting and of finishing tasks.

3724. MAN'S BASIS OF ACCOMPLISHMENT (1940) — A VI 1 NatFORE
(Thoughts on Management Series)
Sound; 15 min.
Justice in business; relationship between logic, economics and ethics in business.

3725. MAN'S PLACE IN AN ORGANIZATION (1940) — A VI 1 NatFORE
(Thoughts on Management Series)
Sound; 15 min.
Organization chart, its purpose; what it should determine for each person in the organization.

3726. MAN'S SHELTER TODAY (1948) — A III 1 POP
40 frames.
Different types of homes used by man throughout world; reasons for certain kinds of shelter man constructs.

3727. MAN'S USE OF FIRE (1948) — A IV 2 POP
(History of Fire)
40 frames.
Uses of fire for light, cooking, warmth, from primitive times to modern day, for young children.

3728. MAPS AND MEN (1948) — C V POP
(Exploring through Maps Series)
44 frames.
Examples of maps used in business, recreation, travel, study of history, geography, etc.

3729. MAPS AND THEIR MEANINGS (1948) — C V POP
(Exploring through Maps Series)
53 frames; color.
Directions on maps, i.e., north, south, east, west in relation to child's everyday experience; color and symbols as aids in reading maps.

3730. MARKETING FEEDS THROUGH DAIRY COWS (No. 379) (1935) — D I 2 USDA
31 frames.
Types of cows and how to determine their value and kinds and value of feeds.

3731. MATHEMATICS AND THE PILOT (1943) — C VII 1 JamH
(Light on Mathematics--Arithmetic)
47 frames.
Importance of mathematics to pilot. Significance to other members of crew of mathematical ability of pilot. Mathematics and happy landings.

3732. MATHEMATICS IN AVIATION: THE COMPASS (1951) — C VII McG-H
(Mathematics, Set II)
32 frames.
Aviator's dependence on compass, especially when flying by charts only. Actual construction of simple compass demonstrates function in navigation. Magnetic variation explained; simple rule for obtaining compass (magnetic) course derived.

3733. MATHEMATICS IN AVIATION: WIND DRIFT (1951) — C VII McG-H
(Mathematics, Set II)
36 frames.
Wind drift defined; installation and operation of wind drift meter in floor of plane. Use of drift indicator to determine wind direction and speed. Vector methods; their importance to pilots and navigators.

3734. MATHEMATICS IN DAILY LIVING (1951) — C VII McG-H
(Mathematics, Set I)
28 frames.
Practical applications of mathematics, in the home, in the community, in business. Car dealer's use of graph for sales information to show operational weak spots, to demonstrate general overall program.

3735. MATTER (1947) — C VIII JamH
(Air Age Physics--Matter and Molecules)
61 frames.
General properties of matter: weight, mass, takes up space, is impenetrable, possesses inertia. Three states of matter: solid, liquid, gas. Matter may change from one state to another.

3736. MEASUREMENT OF HEAT (1948) — C VIII JamH
(Air Age Physics--Heat)
62 frames.
Quantity of heat. Indirect relationship of quantity of heat to temperature. Formulas for determining heat gain or loss of substance under temperature change. Finding specific heat. Principles of heat flow.

3737. MEASUREMENTS AND MEASURING (1941) — A VI 1 JamH
(Introduction to Machining Series)
90 frames.
Part I: Standard of measurement. Work accuracy. Discussion of steel scale and its variations. Dividers and calipers.
Part II: Micrometer. How it works; how to read it. Discussion of Vernier scale principle. Gauges and gauge blocks.

3738. MEASURING EXECUTIVE VALUE (1940) — A VI 1 NatFORE
(Thoughts on Management Series)
Sound; 15 min.
How use of time affects executive efficiency; how executive's personal standard practices

affect organizational standards; importance of self-control in executive; desirable attitude toward advice.

3739. MEASURING FLUID PRESSURE (1946) C VIII JamH
(Air Age Physics--Fluids)
56 frames.
Importance of measuring liquid pressure. Bourdon gauge. Units of pressure. Importance of measuring gas pressure. Automobile tire gauge. Use of manometer and Bourdon gauge in measuring gas pressure. Vacuum gauges.

3740. MEASURING HOME MANAGEMENT (No. C-12) (1950) D I 4 USDA
50 frames; color.
Importance of proper home management and establishment, through research, of standard by which managerial ability of homemaker can be measured.

3741. MEASUREMENT (1951) C VII McG-H
(Mathematics, Set I)
36 frames.
Difficulty of attaining exact measurement illustrated. Degree of accuracy determined by instrument used and by care with which it is used.

3742. MECHANICAL LINKAGE (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Principles of Power Transmission)
53 frames.
Explaining simpler and basic forms of mechanical linkage: levers, gears, eccentrics, cogs, etc. Meaning and significance of mechanical advantage.

3743. MECHANIZED SELLING (1951) A VI 1 McG-H
62 frames; color; also sound.
Role of advertising in selling; how advertising frees salesman for final steps in selling which he alone can take.

3744. MEDIEVAL HERITAGE (No. 59) (1951) A IX 2 CurrF
175 frames; also color.
Seven strips on influence of Middle Ages as evidenced in architecture (particularly in cathedrals and castles), in art and customs; as follows: (467) Castles; (468) The Walled Town--Carcassonne; (469) Cathedrals; (470) Monastery Life; (471) The Bayeux Tapestry; (472) Heraldry; (473) Festivals.

3745. MEDIEVAL LIFE (No. 58) (1951) A IX 2 CurrF
200 frames; also color.
Eight strips on life in medieval times: the manor (point of view both of serf and noble); in the town; the guilds. How feudal system worked; how a man became a knight; fairs; monasteries. As follows: (459) Lord and Vassal; (460) Castle Life; (461) Knighthood; (462) The Serf; (463) The Town; (464) The Guild; (465) The Fair; (466) The Monastery.

3746. MEN AND MOTIVE POWER (1946) A II 7c NSC
Sound; 15 min. *
Precautions which should be observed in railroad roundhouse and shop work. Falls--how they can be eliminated; correct use of tools; importance of protective equipment.

3747. MEN OF MAINTENANCE (1944) A II 7c NSC
Sound; 15 min. *
Precautions railroad maintenance men should observe in operating motor track car, on all types of maintenance equipment, on or near third rail.

3748. METAL BUMPING AND HOT SHRINKAGE (1941) A VI 1 JamH
(Automotive Mechanical Training Series--General Service and Sheet Metal Repair)
54 frames.
Instructions in fundamentals of bumping sheet metal; "hot shrinking" stretched sheet metal.

3749. METAL FINISHING (1942) A VI 1 JamH
(Aviation Metalsmiths Series)
59 frames.
Various types of metal finishing processes: picking, sandblasting, chromium plating, cadmium plating, anodizing, metallizing. What kinds of metal can be treated with each process. Knacks and cautions for metal finisher. Special attention to metal finishing metals used in airplane construction.

3750. METALSMITH'S TOOL KIT, THE (1942) A VI 1 JamH
(Aviation Metalsmiths Series)
56 frames.
How metalsmith's tool kit is designed to hold special tools for special work. Use of proper tools to do work. Standard names and descriptions of standard tools. How to take care of tools to keep them accurate and in service. Standard scales and rules used by metalsmith.

3751. METHODS OF STARTING (1942) A VI 1 JamH
(Aircraft Engine Mechanics Series)
46 frames.
Starting by pulling propeller. Procedure of setting blade and ignition switch. Proper swing and cooperation with pilot. Multiple manpower swing. Starting with shock cord. Procedure and signals. Starting with direct hand crank. Starting with combustion starter. Operations and principles involved. Starting with inertia starter. Electric inertia starter. Direct electric starter. Preparing engine for starting.

3752. MICHELANGELO: THE SISTINE CHAPEL (1950) E VIII LIFE
60 frames; color.
Color record of Michelangelo's frescoes; well-known scenes and individual figures; details of less familiar portions of the paintings.

3753. MIDDLE AGES, THE (1949) E VIII
50 frames; color. LIFE
Life in Middle Ages as depicted in medieval art.

3754. MIGRATIONS OF BIRDS, THE (1946) C II
(Basic Bird Study) JamH
65 frames.
Wonder of migration; how and why birds migrate.

3755. MIKE AND BILL (Friction Between Employees) (1949) A VI 1
(Human Relations in Supervision (Case Problems) Series) McG-H
Sound; 3 min.
Mike and Bill worked well together; argued over something unimportant, continue to work together but do not speak. Unaware of quarrel, supervisor comes to them with special two-man job requiring closest cooperation. Bill says he can't work with Mike because Mike won't speak to him; supervisor suspends Bill for insubordination. From hostile attitude of men, supervisor realizes they feel he has been unfair to Bill.

3756. MILLING MACHINES (1941) A VI 1
(Introduction to Machining Series) JamH
61 frames.
What milling machine is; construction and basic parts. Basic cutter types; work they do. Milling speeds and feeds. Types of mills.

3757. MINOR INJURIES (1942) A II 5
(First Aid Series) JamH
65 frames.
Strains, sprains, dislocations, bruises, frostbite, foreign bodies in eye, ear, nose, and throat.

3758. MINUTE MEN (1942) A II 7c
Sound; 20 min. * NSC
Hazards involved in work of utility company linemen; safety precautions they must observe. Safety rules for boiler room, substation, meter department workers.

3759. MIXING AND USING CASEIN GLUE (1942) A VI 1
(Aircraft Mechanics Series) JamH
46 frames.
Content of casein. Keeping casein. Mixing methods. Checking consistency. Preparing joint. Application. Clamping joint. Wiping off excess. Removing clamps.

3760. MODERN GASOLINE (1946) A VI 1
Sound; 11 min. ** ETHYL
How improvement in gasoline has resulted in balanced volatility, correct vapor pressure, low gum content, high anti-knock value. Effect on engine power and road economy.

3761. MODERN INDUSTRIAL POWER DISTRIBUTION (1947) A VII
Sound; 30 min. ** GE
How load-center power distribution brings electric energy to points of use in plant; many advantages of this method of distribution. Six fundamentals of load-center systems: minimum cost, most economical substation size, adequate interrupting capacity, overcurrent protection, proper voltage and efficient circuit arrangements, illustrated and discussed.

3762. MODERN SCHOOL BUILDINGS AND EQUIPMENT (1952) A I 1
113 frames. ACE
Part I: The Modern Elementary School. Current trends in elementary school construction and equipment in the United States; contribution to effective teaching programs. Part II: The Comprehensive High School. Current trends in secondary school construction and equipment in the United States; contribution to effective teaching programs.

3763. MODERN VALVE RECONDITIONING (1942) A VI 1
(Automotive Mechanical Training Series--Servicing Engine Assembly) JamH
57 frames.
Instructions for valve grinding, valve seat refacing, valve guide service. Reassembly instructions.

3764. MOLECULAR FORCES IN LIQUIDS (1947) C VIII
(Air Age Physics--Matter and Molecules) JamH
73 frames.
Cause and effect of surface tension. Application: soap action in water; alcohol in antiseptic; capillarity; adhesion; cohesion. Laws of capillarity; application to plant culture.

3765. MOLECULAR FORCES IN MATTER (1947) C VIII
(Air Age Physics--Matter and Molecules) JamH
58 frames.
Explanation and examples of cohesion and adhesion in solids, liquids and gases. Greater expansibility of gases. Special properties of matter. Explanations and applications of tenacity, ductility, malleability, hardness and elasticity.

3766. MONEY, PRICES AND INTEREST (1950) A VII
(Economics Series) McG-H
44 frames.
Different types of money; value of money; quantity theory; other theories relating amount of money to price level. Process and effect of inflation and deflation. Relationship between liquidity preference for money and interest rates.

3767. MONTICELLO (1949) A IX 1
(American Scenes and Cities Series) CAS
38 frames; color.
Monticello, home of Thomas Jefferson, seen room by room, furnished as in his day; evidences of his genius in architecture and "design for living": automatic doors, hide-away beds, portable writing desk, the first dumb-waiter.

3768. MORE VOLUNTEERS (1949) A I 5 e
57 frames; color. (6) GScout
How to recruit volunteers for work with Girl Scouts.

3769. MOUNT VERNON (1947) A IX 1
(American Scenes and Cities Series) CAS
35 frames; color.
Home of George Washington. The estate, the residence: circular courtyard lined with small separate buildings--kitchen, slaves' quarters, butler's house, ice house, spinning house, stables, and others. House and its furnishings are as when Washington lived.

3770. MOVING THE INJURED A II 5
(CARRYING) (1942) JamH
(First Aid Series)
54 frames.
How to improvise stretcher; how to carry injured when stretcher can't be made quickly.

3771. MOVING THE INJURED A II 5
(STRETCHERS) (1942) JamH
(First Aid Series)
41 frames.
Moving the injured on various types of stretchers.

3772. MRS. CACKLES BECOMES A A IV 2
GOOD CITIZEN (1950) JamH
(Animal Stories Series)
27 frames; color.
Mrs. Cackles, a pet hen, is "bossy" until she spends a winter with other hens and learns to be a good cooperative citizen.

3773. MRS. JONES LEARNS ABOUT A III 3
NONFAT DRY MILK (1950) CAS
(Technical Subjects for Higher Training)
47 frames; color.
Preparation of nonfat milk by removal of water and cream; transformation of dry milk into liquid.

3774. MULTIPLE CYLINDER ENGINES A VI 1
(1941) JamH
(Automotive Mechanical Training Series--Fundamentals, Internal Combustion Engine)
48 frames.
Applying principles to engines of more than one cylinder; explaining some of refinements of modern engine.

3775. MULTIPLICATION AND C VII 1
DIVISION (1943) JamH
(Light on Mathematics--Arithmetic)
70 frames.
Short method of addition and subtraction explained. Working form. Contacting decimal point. Anticipation of results. Short cuts. Checks.

3776. MULTIPLICATION AND DIVI- C VII 3
SION IN GEOMETRY (1943) JamH
(Light on Mathematics--Geometry)
54 frames.
Completing application of arithmetic to geometry. Areas and volumes. Ratios and similarity. The circle.

3777. MULTIPLICATION AND C VII 1
DIVISION OF FRACTIONS JamH
(1943)
(Light on Mathematics--Arithmetic)
30 frames.
Indicated multiplication and division. What really happens when fractions are multiplied or divided. Reductions. Way to tame large fractions. Short cuts. Checks.

3778. MULTITUDE OF SUNS, A (1947) C I
(The Sky Series) JamH
62 frames.
Correlated illustrated lessons to reduce the immensities of time, space, and size in stellar world to student's easy comprehension; realistic concept of earth--tiny speck in universe.

3779. MY EYE DEAL (1946) A II 7c
Sound; 15 min; color.* NSC
Importance of wearing safety goggles while at work on certain jobs.

3780. MY FATHER IS A BUS DRIVER A IX 1
(1949) McC
(Community Living Series)
53 frames.
Basic function of transportation in relation to community life and activities of individuals, personalized in central figure of father who drives bus.

3781. MY FATHER IS A FIREMAN A IX 1
(1949) McC
(Community Living Series)
53 frames.
Activities of average fireman; apparatus and actual fire fighting; "housekeeping" work of firemen. Causes of fires; fire prevention.

3782. MY FATHER IS A GARBAGE A IX 1
MAN (1949) McC
(Community Living Series)
51 frames.
Housekeeping functions of sanitation department of typical town; analogy between orderly maintenance of family home and performance of similar functions for town. Duty of individual citizen to help keep his town clean.

3783. MY FATHER IS A JUDGE (1951) A IX 1
(Community Living Series) McC
50 frames.
How obedience to rules and regulations is basis of order and harmony in community as well as in family; judge, also a father, regarded by his son as benign referee rather than as abstract symbol of legal authority.

3784. MY FATHER IS A POLICEMAN A IX 1
(1949) McC
(Community Living Series)
56 frames.
Family of typical policeman; his services to town during normal day's work.

3785. MY FATHER IS A POSTMAN A IX 1
(1949) McC
(Community Living Series)
54 frames.
Day's work of postman; his services to community related to services of national government.

3786. MY FATHER IS A PUBLIC HEALTH DOCTOR (1951) A IX 1
(Community Living Series) McC
50 frames.
How many functions performed by nurse are expanded through authority of public health doctor; importance of elementary sanitation and preventive medicine.

3787. MY MOTHER IS A LIBRARIAN A IX 1
(1951) McC
(Community Living Series)
50 frames.
Importance of functions performed by school and public libraries; need for free access to books in democratic society.

3788. MY MOTHER IS A PUBLIC HEALTH NURSE (1951) A IX 1
(Community Living Series) McC
50 frames.
Analogies between maternal care for health in home and community care for health as symbolized by public health nurses; importance of organized public concern for health of all citizens.

3789. MY MOTHER IS A TEACHER A IX 1
(1951) McC
(Community Living Series)
50 frames.
Teachers' school duties outside classroom; home, family, and social relations of teachers.

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3790. NATIONAL INCOME (1950) A VII
(Economics Series) McG-H
72 frames.
Part I: Two ways of measuring national income: total of all incomes earned or value of all final goods produced. Components of each concept of value added in measuring net national product; real and money income.
Part II: Detailed analysis of available data on national income; problem of how to treat taxes and government expenditures; depreciation: gross investment. Relationships between gross national product, net national product, and national income.

3791. NATIONAL POULTRY IMPROVEMENT PLAN, THE (No. 413) (1938) D I 2 USDA
48 frames.
How any flock owner, hatcheryman, or breeder may participate in national plan to improve breeding and production qualities; how to identify these qualities with uniform terminology. How to control pullorum disease. How flocks may meet requirements of three pullorum-control classes and five progressive breeding stages.

3792. NATURE OF DEMOCRACY, THE (No. 38J) (1951) A VIII CurrF
256 frames; color.
Seven strips, explaining basic ideas essential to democracy; contrasting with situations in undemocratic societies; as follows: (345) Democracy at Work; (346) Freedom of Religion; (347) Equality Before the Law; (348) Taking Part in the Government; (349) Freedom of Expression; (350) Education; (351) By and For the People.

3793. NATURE OF PLANT DISEASES, THE (No. 165) (1939) D I 4 USDA
47 frames.
Structure and development of fungi; how these plants cause diseases of various parts of cultivated plants. Methods of control.

3794. NATURE STUDY STORIES (No. 8) (1951) C II CurrF
167 frames; color.
Six strips, to encourage interest in general science, as follows: (62) Animals of the Pond; (63) Ann Visits the Zoo; (64) Birds of the Zoo; (65) Low Tide at the Beach; (66) The Turtles; (67) A Walk in the Woods. For young children.

3795. NEW BOOK, THE (1946) A IV 5
(Child Cooperation and Self-Discipline Series) S--M
30 frames.
Proper use of book; how wrong use may result in permanent damage to book.

3796. NEW CHICKEN, THE (1949) D I 2
68 frames; color; silent.** DeK
Methods used in production of inbreds and crosses in poultry to improve and strengthen desirable qualities.

3797. NEW EMPLOYEE AND FELLOW WORKERS, THE (1951) A VI I McG-H
(Business Etiquette, Set I)
30 frames.
Importance of getting along with co-workers; how it can be done. Introductions, lunch hour behavior; recreation. How etiquette will help.

3798. NEW GARDENER, THE (No. 641) (1943) D I 3 USDA
49 frames.
Beginner's course charted simply and in detail through main steps in gardening. How to prepare ground; how to plant various seeds, how far apart, not too thick or deep; how and when to transplant, weed, stake, harvest.

3799. NEWTON'S LAWS OF MOTION (1943) C VIII JamH
(Air Age Physics--Mechanics)
58 frames.
Momentum. Impulse. Inertia. Reaction. Three laws of motion. Forces involved in motion.

3800. NO LAUGHING MATTER (1945) A II 7c
(Worker Training Course) NSC
Sound; 15 min. *
Falls: from trucks and trailers; from ladders and scaffolds; into elevator shafts; over stock piles; by slipping on grease, etc.; on stairs. How to prevent such falls.

3801. NO USE SKIDDING (1945) A II 7d
Sound; 20 min. * NSC
Hazards of winter driving--how to avoid them. Discusses braking on snow and glare ice and other driving tips.

3802. NONE SO BLIND (1947) B VIII
57 frames; color (cartoon); ADL
also sound.
Problem of prejudice analyzed; roots of discrimination probed; wasteful social effect of prejudice.

3803. NUMBER FAMILY IN ADDITION, A (1947) C VII 1 POP
(Primary Arithmetic Series)
42 frames.
Principle of addition explained for young children; illustrated.

3804. NUTRIENTS IN FOOD, THE (1949) A III 3 POP
52 frames.
Right foods make for growth, energy, health protection. Contributions of proteins, fats, carbohydrates, minerals. Vitamins explained.

O

3805. OBJECTIVES IN BUSINESS (1940) A VI 1 NatFORE
(Thoughts on Management Series)
Sound; 15 min.
Factors, interests, functions, purpose of business brought up for discussion, leading to definition of purpose of any particular company.

3806. OCCUPATIONS IN AIRCRAFT MANUFACTURING (1942) A VI 5 MAHNKE
56 frames.
Workers in aircraft plants shown busy on many parts of airplane involving many operations: drafting, hydraulic presswork, work with sheet metal; welding and riveting. Assembly operations.

3807. OCCUPATIONS IN AIRCRAFT OPERATION (1942) A VI 5 MAHNKE
60 frames.
Jobs in aircraft operation, including training; navigation, weather, link trainer, engine overhaul, actual flying. Various flying jobs, plane servicing, flight control; jobs for women.

3808. OCCUPATIONS IN CEMENT MANUFACTURING (1942) A VI 5 MAHNKE
54 frames.
Quarry, cement plant, crusher, power plant and burner operators. Burning stone, sacking, loading and cleaning operations. Chemists and engineering jobs explained.

3809. OCCUPATIONS IN THE PRINTING INDUSTRY (1942) A VI 5 MAHNKE
60 frames.
Jobs in printing industry; linotype, monotype, photo engraving, electrotyping, stereotyping work on presses, offset work, in bindery, etc.

3810. OCCUPATIONS IN THE STEEL INDUSTRY (1942) A VI 5 MAHNKE
60 frames.
Workers and processes in steel industry. Skilled, semi-skilled, unskilled workers; metallurgists, men working around convertors, rollers, control operators, inspectors. How steel is worked into finished product.

3811. OFF TO A FLYING START (1948) A VI 1 GMILLS
(Supervisor Training Series)
Sound; 11 min. **
Significant aspects of assuming management job: new horizon opened, change in mental outlook necessary to success in such assignment.

3712. OIL SYSTEMS (1942) A VI 1
(Aircraft Engine Mechanics Series) JamH
73 frames.
How oil system works in V and radial type engines. Wet and dry sump systems. Oil flow from tank through external and internal system; oil tanks, screen and self-cleaner types strainers, pressure relief valves, pressure gauges, oil temperature regulators, oil lines, oil coolers, viscosity valves, spring loaded type valves. How to trace simple oil line failures.

3813. OPERATING--SPEEDS (1946) A II 7c
(Safe Practices in Metalworking-- JamH
Engine Lathe)
78 frames.
Starting, stopping, reversing lathe. Setting lathe speeds. Estimating lathe speeds. Lathe controls.

3814. OPTOMETRY (1942) A VI 5
54 frames. MAHNKE
Training required in optometry: various sciences which must be studied and mastered. Clinical internship; opportunities offered in field.

3815. ORDER OF OPERATIONS (1943) C VII 1 JamH
(Light on Mathematics--Arithmetic)
46 frames.
Practical uses of processes studied. Operations involving choice of basic methods. Development of mental resourcefulness.

3816. OSTEOPATHY (1942) A VI 5 MAHNKE
56 frames.
Training and duties of osteopath. Subjects he must master. History of osteopathy.

3817. OTHER SPECIALIZED MACHINES (1941) A VI 1 JamH
(Introduction to Machining Series)
45 frames.
Basic principles of broaches; slotters, boring mills, profilers, hobbers. What they do; how they do it.

3818. OUR CONGRESS (1946) A VIII YAF
(Federal Government Series)
38 frames.
How two houses of U. S. Congress are set up; on what basis senators and representatives are chosen; duties and powers of Congress, both expressed and implied; powers reserved especially for each house.

3819. OUR COUNTRY, ITS RESOURCES AND ITS WORKERS (1946) A IX 1 POP
(Living Together in the United States of America Series)
50 frames.
Natural resources: Coal, iron ore, oil, forests, water power, etc. Workers: farmers, oilmen, fishermen, miners, ranchers, lumbermen; workers in transportation; workers who process raw materials. Workers who serve: in communications, professions, government, etc.

3820. OUR EARTH IS CHANGING (1947) C VI JamH
(Our Earth Series)
68 frames.
Basic concept that earth is in continual process of change, adjusting and readjusting to forces from within and without; earth's high and low places; how mountains are made, what an earthquake is; how an earthquake happens.

3821. OUR FEDERAL GOVERNMENT (1946) A VIII YAF
(Federal Government Series)
48 frames.
Three main branches of U. S. federal government as set up by constitution: executive, legislative and judicial. Steps a bill must follow to become law. How system of "checks and balances" operates.

3822. OUR HOMES AND OUR COMMUNITIES (1949) A III 1 POP
(Living Together in the United States of America)
46 frames.
Types of residences (apartments, farmhouse); better, average and poor homes. Various types of communities; advantages, disadvantages of each. Slums; how they can be cleared. Raw materials that go into homes; workers who provide them and construct homes.

3823. OUR NEIGHBOR, THE MOON (1947) CI JamH
(The Sky Series)
50 frames.
Size of moon; its travel in relation to earth and sun. Imaginary rocket trip to moon demonstrates what is known of conditions on moon; effects such conditions would have on human life and behavior there.

3824. OVERCOMING ECONOMIC BARRIERS TO HIGHER EDUCATION (1952) A I 1 ACE
54 frames.
Some ways by which United States students of limited means are assisted in securing advanced education.

3825. OXYACETYLENE CUTTING (1942) A VI 1 JamH
(Oxyacetylene Welding--Elementary Practice)
39 frames.
Cleaning; preparing cut for oxyacetylene welding. Preparing cutting torch. Safety.

P

3826. P. U. D. DRIVER WINS AGAIN (1945) A II 7d NSC
Sound; 20 min. *
Typical day in the life of a "pick up and delivery" automobile driver (in the United States).

3827. PACKED WITH SAFETY (1944) A II 7c NSC
Sound; 15 min. *
Accidents in meat packing industry. Causes enumerated and preventive measures suggested.

3828. PAUL STEELE (Insubordination Backed by Union) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Newly-appointed foreman asks machinist of 23 years' service to clean up work area as every one else does. Paul refuses. Refuses to help out in another department's emergency. Foreman sends him home. Union president says he cannot be fired because he is steward; requests that Paul be put back to work immediately. Union president threatens to call strike.

3829. PEOPLE ARE ALL ALIKE (1948) (Human Factors in Safety Series) Sound; 15 min. * — A II 7c NSC

Basic human wants of normal people. How shop supervisor can satisfy these wants and so get men to work with him.

3830. PEOPLE ARE DIFFERENT (1948) (Human Factors in Safety Series) Sound; 15 min. * — A II 7c NSC

How supervisors may make allowances for individual differences; how to handle the tough guy, the show-off, the loud mouth, the day dreamer, the practical joker.

3831. PERIODIC TABLE, THE (1949) (Chemistry Series) 50 frames. — C IV McG-H

Earliest attempts to group chemical elements according to properties. Mendelyeev; periodic law. Chemistry's official index. Periodic characteristics of elements; importance of atomic number; certain atomic weight inversions found in table explained by isotopes. How number of elements in each period is related to atomic structures of those elements; how families of elements with similar properties have marked similarities in atomic structures.

3832. PERSONAL CONTRIBUTION (1949) Sound; 15 min.; color. ** — A VI 1 NaAIGM

Methods and procedures in merchandising gloves; techniques of display and salesmanship.

3833. PESKY THE COLD BUG (1946) (Good Health Series) 46 frames. — A II 2 YAF

Cartoon treatment of common cold germ, presenting rules child should observe to protect himself from cold germ and the annoying colds caused by it. Rules to follow in caring for a cold if one is contracted.

3834. PIECE OF WIRE, A (1951) 48 frames; color. (3) — A I 5 e GScout

How a simple piece of wire suggested a great number of program possibilities to three Girl Scout troops.

3835. PILOTS OF THE HIGHWAY (1945) Sound; 20 min. * — A II 7d NSC

Many things a professional automobile driver has to learn.

3836. PIONEERS AND SETTLERS OF THE UNITED STATES (No. 36E) (1951) 151 frames; color. — A IX 1 CurrF

Six strips: exploration, pioneering, and settlement of the United States; development from series of tiny settlements on Atlantic coast to nation that spans the continent. Motives of the pioneers: desire for political and religious freedom, better living, adventure. Processes by which new land was acquired, admitted to the Union: settlement, purchase, conquest, or petition. Titles, as follows: (289) Early Explorers and Pioneers; (290) Pioneers and Settlers of the Northwest Territory; (291) Pioneers and Settlers of Louisiana and Texas; (292) Pioneers and Settlers of the Oregon Territory; (293) Pioneers and Settlers of the Mexican Territory; (294) Pioneers and Settlers of Alaska.

3837. PLANE GEOMETRY (No. 46) (1951) 670 frames; color. — C VII 3 CurrF

Sixteen strips; plane geometry explained and applied, as follows: (362) Introduction to Plane Geometry; (363) Vocabulary: Lines and Angles I; (364) Vocabulary: Lines and Angles II--Relationships; (365) Vocabulary: Lines, Relationships--Direction, Perpendicular Lines; (366) Vocabulary: Triangles; (367) Vocabulary: Polygons; (368) Vocabulary: Circles I; (369) Vocabulary: Circles II; (370) Foundations of Geometry--Postulates: Lines; (371) Foundations of Geometry--Postulates: Triangles and Circles; (372) Locus; (373) Geometry in Art; (374) Applying Geometric Logic--Definitions and Key Words; (375) Applying Geometric Logic--Deductive Reasoning; (376) Applying Geometric Logic--Induction, Analysis, and Indirect Reasoning; (377) Applying Geometric Logic--Mistakes in Thinking.

3838. PLANE PERFORMANCE (1942) (Aircraft Mechanics Series) 89 frames. — A VI 1 JamH

Landing, cruising, maximum speeds, range, endurance, rate of climb, time to climb to altitude, service ceiling, and absolute ceiling defined and explained. Factors determining performance, amount of lift, weight, thrust, drag. Wing loading, power loading, as they determine performance. Safety pointers on safe load factors.

3839. PLANER (1944) (Wood Shop--Woodworking Tools and Machines) 75 frames. — A VI 1 JamH

Introduction to planer. Names and functions of parts. Safe practices for setting up planer. Safe practices for using planer.

3840. PLANERS (1941) (Introduction to Machining Series) 40 frames. — A VI 1 JamH

Difference between shaper and planer. Construction features of planer. Types of work performed. Planer tools. Safety hints.

3841. PLANES, BITS, KNIVES, CHISELS, SCREWDRIVERS, FILES (1944) A VI 1 JamH
(Wood Shop--Woodworking Tools and Machines)
72 frames.
Safe use of smooth, jack, and jointer planes. Bits and drills. Chisels, gouges, carving tools. Knives. Selecting and using screwdrivers. Safe use of files and wood rasps.

3842. PLANNING PROGRAM WITH GIRLS THROUGH TROOP GOVERNMENT (1951) A I 5 e GScout
99 frames; color. (2)
Forms of troop government used in Girl Scouts: Patrol System; Club (or Town Meeting). How to decide which to use; election and training of officers; discovering girls' interests; planning program democratically; delegation and carrying out of responsibilities; evaluation; leader's part in helping girls take responsibility.

3843. PLANT PHYSIOLOGY (1947) C II Macmil
(General Biology Series)
47 frames.
Life activities of woody plant associated with related structural features of roots, stems, leaves; transpiration stream, from intake of water by root hairs to destination in mesophyll of leaves; factors contributing to ascent of water in plants; food manufacture and respiration; nature and importance of tropisms.

3844. PLANTS AND STRANGE ANIMALS OF THE SEA (1948) C II JamH
(Water Life Series, No. 6)
60 frames.
Plants of the ocean; strange shore animals. Their importance to man.

3845. PLAY SAFE AND WORK SAFELY (1945) A II 7c JamH
(Wood Shop--Basic Shop Safety)
77 frames.
Safety program. Safe dress (shop clothing). Good personal habits (shop hygiene). Shop conduct (working safely as member of group).

3846. PLOTTING GRAPHS (1943) C VII 4 JamH
(Light on Mathematics--Graphs)
69 frames.
Visualizing equation. Constants and how they change picture. Simultaneous equations and their solution.

3847. POISON (1942) A II 5 JamH
(First Aid Series)
35 frames.
First aid treatment of drug, food, carbon monoxide poisoning.

3848. POLICEMAN, THE (1947) A IX 1 POP
(Community Helpers Series)
38 frames.
Policeman's duties: in traffic, in respect to lost children, in emergencies (first aid). Policeman is law: to be obeyed.

3849. POLICY AS A WORKING TOOL (1940) A VI 1 NatFORE
(Thoughts on Management Series)
Sound; 15 min.
When to acquaint man with company policy; what makes company policy effective; how to receive new ideas; how to persuade a man to accept job suitable to him. What executive should, and should not, delegate.

3850. POLITICAL PARTIES AND ELECTIONS A VIII McG-H
(American Government Series)
(1949-50)
39 frames.
Right to vote as provided by U. S. Constitution; privilege subject to various kinds of restrictions imposed by states. Objectives and functions of political parties in nominating and electing candidates for office; how parties help to focus responsibility, provide unity among groups of office holders, help formulate governmental policy. Hierarchy of committees in political parties from national to local level; activities. Principal methods by which candidates for public office are nominated; common forms of ballots used in elections. Why individual voter should be well informed and assume increasing responsibility for political decisions.

3851. POSITIVE AND NEGATIVE NUMBERS (1943) C VII 2 JamH
(Light on Mathematics--Algebra)
60 frames.
"Well-known positive" and "helpful negative" visualized. How they influence each other in four fundamental operations. Realm of negative; its contribution to mathematical scope.

3852. POST OFFICE DEPARTMENT (1946) A VIII YAF
(Federal Government Series)
44 frames.
How U. S. Post Office Department, under postmaster general sees that mail is delivered from sender to receiver efficiently, swiftly, safely, using all modern means of communication (railroads, airlines, automobiles, etc.). Various classification of mail.

3853. POWER (1943) C VIII JamH
(Air Age Physics--Mechanics)
42 frames.
Progress of civilization due to power. Definition of power. Units of power. Horsepower. Purchase, transmission and use of power.

3854. POWER BRAKES (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Mobility Factors)
86 frames.
Compressed air and vacuum-type brakes.

3855. POWER PLANT LUBRICATION (1942) — A VI 1 JamH
(Aircraft Engine Mechanics Series)
45 frames.
Different types of equipment required for power plant lubrication. Different types of oils and greases. Lubrication of engine; each unit of engine discussed; specific lubricating directions.

3856. POWER SUPPLY (1945) — A II 7c JamH
(Wood Shop--Basic Shop Safety)
120 frames.
Starting and stopping machines wired separately from each other. Machines controlled by hand-operated master switch. Machines using motor controllers and emergency. Stop stations. Machines driven by overhead belts. Shifting machine belts. Shifting overhead belts.

3857. POWER TRANSMISSION TROUBLE (1941) — A VI 1 JamH
(Automotive Mechanical Training Series--General Service)
68 frames.
Most common sources of trouble in clutch, transmission, universal joints, propeller shaft, and rear axle assembly.

3858. PREPARATION FOR FABRIC COVERING (1942) — A VI 1 JamH
(Aircraft Mechanics Series)
40 frames.
Cross rib bracing on wing structures. How to use tape on wood and steel structures. Method of securing tape to ribs, taking up and anchoring. Dope proofing by means of dope proof paint, cellulose tape and metal foil. Fabric estimating for fuselage, aileron structures, wings, elevators. Measuring to warp of material. Seam allowances, total lengths, tape required. How to measure total lengths.

3859. PREPARING TO TEACH (1952) — A I 1 ACE
56 frames.
How students are prepared for teaching profession in representative teacher education institution in the United States.

3860. PRESENTING QUOTATION MARKS (1946) — A IV 3 POP
(All Aboard the Punctuation Express Series)
63 frames.
Use of quotation marks (in writing conversation, titles, quoted material); in relation to capitals and other punctuation marks.

3861. PRESENTING THE APOSTROPHE (1946) — A IV 3 POP
(All Aboard the Punctuation Express Series)
40 frames.
Uses of the apostrophe: to show possession or ownership; to indicate omission of a letter. Common errors in use.

3862. PRESENTING THE COLON, THE SEMICOLON AND THE DASH (1946) — A IV 3 POP
(All Aboard the Punctuation Express Series)
45 frames.
Uses of colon (to point forward in introduction; with figures); uses of semicolon (in place of comma and conjunction, before conjunctive adverbs; to separate parts of sentence); uses of dash (to indicate abrupt change, summing up or emphasis).

3863. PRESENTING THE COMMA (1946) — A IV 3 POP
(All Aboard the Punctuation Express Series)
116 frames.
Part I: Uses of comma: in series (plain and address and date).
Parts II and III: in "loose" part of sentence.

3864. PRESIDENT: OFFICE AND POWERS, THE (1950) — A VIII McG-H
(American Government Series)
36 frames.
Method of electing U. S. President by electoral college; some proposed revisions of system. Administrative bodies: cabinet, executive departments, staff agencies, through which president administrates. President's powers; leadership; discretionary authority delegated by Congress.

3865. PREVENT FARM FIRES (No. 642) (1944) — D I 5 USDA
38 frames.
How to reduce annual fire loss by fireproof construction; replacements, not patches; approved wiring.

3866. PREVENTION MAINTENANCE PAYS (1947) — D I 3 ETHYL
Sound; 21 min. **
Checks and adjustments tractor owners and servicemen should perform to insure correct operation of valves, ignition, filters, cooling system and carburetor of farm tractor. Off-season storage of tractors. Importance of good fuel; how to store and use fuel.

3867. PRINCIPLES AND INTEREST (1945) — A II 7c NSC
(Safety Management for Foremen)
Sound; 20 min. *
Selling safety; worker's interest prevents accidents.

3868. PRINCIPLES OF ELECTROMAGNETISM (1952) — C VIII McG-H
(Automotive Mechanics, Set I)
31 frames.
Basic qualities of bar magnet shown to hold good in electromagnetism. Various qualities of magnetic field around wire carrying current and left-hand rule explained.

3869. PRINCIPLES OF GENERATOR REGULATION (1951) A VI 1 SunEC
Sound; 17 min.
Operating principles of generator regulator; use of regulator in controlling generator output; operation of generator regulator units; regulators in three stages of charging battery.

3870. PRINT CONTRAST CONTROL (1951) E IX McG-H
(Photographic Darkroom Procedures, Series II)
58 frames.
Various methods of improving print quality by increasing tonal range between whites and blacks of print, through use of different papers; by reduction and intensification.

3871. PRINT PRESENTATION (1951) E IX McG-H
50 frames.
Techniques of mounting prints: with rubber cement; with dry mounting tissue. Various types of mounts illustrated. Tips on presenting prints for graphic arts reproduction.

3872. PROBLEM ANALYSIS (1943) C VII 2 JamH
(Light on Mathematics-Algebra)
45 frames.
How to "size up" problem. Surveying information. Completing picture. Analyzing results.

3873. PRODUCTION OF MAPLE SYRUP, THE (No. 682) (1948) D I 1 USDA
59 frames.
Value of maple syrup production in the United States; process used.

3874. PRODUCTION WITH SAFETY (1945) A II 7c NSC
(Safety Management for Foremen)
Sound; 20 Min. *
Safety training for new worker: safety shoes, goggles, gloves; safety instructions and follow-up. Importance to management and labor of avoiding accidents.

3875. PROFESSIONAL AND MANAGERIAL OCCUPATIONS (1942) A VI 5 MAHNKE
60 frames.
Typical jobs for men and women: radio and automotive engineer; pathologist, stewardess, librarian, actors. Semi-skilled workers: X-ray technician, photographer, artist, draftsman, etc.

3876. PROFIT AND COST EQUILIBRIUM (1950) A VII McG-H
(Economics Series)
44 frames.
Perfect competition, monoply and monopolistic competition, contrasted. Relationship between price, quantity, total revenue, and marginal revenue. Costs broken down into fixed, variable, average, marginal. Point of maximum profit. Marginal productivity theory; problem of distribution as it would appear to firm trying to minimize costs.

3877. PROJECTION PRINTING (1950) E IX McG-H
(Photographic Darkroom Procedures Series)
86 frames.
Part I: Operation of enlarger: each step in preparations for making print. Advantages of determining correct exposure by first making test print; how done. Importance of proper agitation in developing and fixing; correct technique of agitation.
Part II: Making of full-scale print of same negative used in Part 1. Standard procedures in developing, fixing, washing and drying of both matte and glossy surface projection prints. How to prevent curling of singleweight prints; how to flatten wavy prints to prepare them for mounting.

3878. PROPAGATION OF TREES AND SHRUBS BY VEGETATIVE MEANS (No. 600) (1940) D I 5 USDA
47 frames.
Propagation to insure true perpetuation. Use of stolons, layers, cuttings, grafts, buds, sprouts, rootstocks.

3879. PROPELLER MAINTENANCE (1942) A VI 1 JamH
(Aircraft Engine Mechanics Series)
61 frames.
Different types of propellers. Servicing metal types. Cleaning, oiling and inspection. Field repairs. Smoothing nicks and gashes. Etching for cracks. Straightening bent blades. Safety rules. Checking for alignment. Propeller hub lubrication.

3880. PROPERTIES OF METALS (1942) A VI 1 JamH
(Aviation Metalsmiths Series)
103 frames.
Part I: Definition of metals. Alloys. Properties: strength, elasticity, toughness, ductility, malleability, brittleness, hardness, fusibility, corrosion, resistance. How metals are tested to determine how much of each of these properties they possess. Working metal. Heat-treating.
Part II: Metals and alloys used in airplane construction: steel, aluminum (alloys), copper, brass, bronze, monel metal, oconel, stellite, magnesium. Classification of metal according to chemical composition. Uses of metals in airplane. Working aluminum.

3881. PROTECTION OF METALS (1942) A VI 1 JamH
(Aviation Metalsmith Series)
83 frames.
Preventing corrosion. Protective coatings. Types of corrosion: oxidation and intercrystal-

line. Causes. Plating process and coatings. Metallizing. Anodizing. Metal-greasing. Use of light oil. Application of Lion oil. Polishes. Painting and varnishing.

3882. PUBLIC ADMINISTRATION AND CIVIL SERVICE (1950) A VIII McG-H
(American Government Series)
44 frames.
Internal organization, operational functions, and lines of authority of various types of administrative units of U. S. federal government, Hoover Commission recommendations for improving efficiency of these agencies. Derivation and exercise of administrative powers of these organizations; extent to which powers are subject to judicial review and legislative control. Procedures followed in selection of government personnel; working of the civil service system.

3882. PURPOSE OF FIRST AID, THE (1942) A II 5 JamH
(First Aid Series)
51 frames.
Some applications of first aid.

3884. PUSH ROD ASSEMBLY (1942) A VI 1 JamH
(Aircraft Engine Mechanics Series)
46 frames.
Functions, characteristics of various engine push rods; their importance. Removal, inspection, maintenance, assembly of push rods.

3885. PUTTING HEAT TO WORK (1948) C VIII JamH
(Air Age Physics-- Heat)
73 frames.
Heat and work. Explanation of Joule's Law. Steam engines. Operation of steam reciprocating engines and steam turbines.

Q

3886. QUALIFICATION TEST FOR WELDERS (1942) A VI 1 JamH
(Oxyacetylene Welding--Special Practice)
59 frames.
Test welds: single V butt, tubular butt, vertical fillet, combination sheet and tube, horizontal fillet and checks and tests.

3887. QUALITY CONTROL IN NEGATIVES (1951) E IX McG-H
(Photographic Darkroom Procedures, Series II)
64, 62 frames.
Part I. How to recognize differences between over- and under-exposure, over- and under-development. Subtractive reduction, proportional reduction, intensification, new coccining of negatives.
Part II. How to recognize and avoid various negative faults: fog, water spots, reticulation, pinholes. Localized application of opaque and light-restraining dyes to negatives.

R

3888. RADAR (1948) A VI 1 WestH
Sound; 30 min. **
Principles, use, operation of radar, in three parts: (1) Radar detection and ranging, presenting factually the principles of navigational radar; (2) Operation of type MU radar, showing parts of the mechanism; (3) Radar interpretation and position finding relative to ship's position.

3889. RAILROAD OCCUPATIONS (1942) A VI 5 MAHNKE
59 frames.
Variety of jobs in railroading, skilled and semi-skilled. Train crew, jobs in dining car, dispatching, freight yard operators.

3890. RAINDROPS AND EROSION (No. 672) (1947) D I 1 USDA
~~50~~ frames.
Raindrops as primary cause of destruction of topsoil; processes of raindrop action; loss of fertility; flood run-off; silt accumulation in streams and reservoirs.

3891. RATIO AND PROPORTION (1943) C VII 2 JamH
(Light on Mathematics--Algebra)
50 frames
Graphic visualizations of what is meant by ratio and proportion. How these forms help in practical, everyday situations. The magic three.

3892. READJUSTING ENTRIES (1949) A VI 3 McG-H
(Accounting Series)
32 frames.
Readjusting entries defined; conditions under which they are desirable. Specific readjusting entries illustrated for accruals payable, accruals receivable and deferred credits. Specimen entries covering various types of adjustments that require readjustments.

3893. REAMING, TAPPING AND THREADING (1941) A VI 1 JamH
(Bench Work)
86 frames.
Types of reamers, taps and dies and their parts. Techniques of reaming. Removing broken taps.

3894. REAR AXLES (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Principles of Power Transmission)
47 frames.
Principles involved in semi-floating, three-quarter floating, and full-floating rear axles.

3895. RECEIVING CUSTOMERS AND CALLERS (1951) A VI 1 McG-H
(Business Etiquette Series, Set II)
36 frames.
How to receive visitors, handle complaints, answer telephone. Importance of employee's contact with public.

3896. RECESSING-CHAMFERING-FILING-POLISHING-KNURLING (1946) — A II 7c JamH
(Safe Practices in Metalworking-Engine Lathe)
80 frames.
Turning a recess. Chamfering. Filing. Polishing. Knurling.

3897. RECIPROCATING PUMPS (1946) — C VIII JamH
(Air Age of Physics-Fluids)
90 frames.
Lift, deep-well, force pumps. Other types of reciprocating liquid pumps. Reciprocating liquid devices for performing work: reciprocating vacuum pump; compressors. Reciprocating gas devices for performing work.

3898. RECRUITING INTERVIEW, THE (1949) — A I 5 e GScout
56 frames; color. (7)
Approach to prospective volunteer for Girl Scouts; how to prepare for, conduct, and record interview.

3899. REFRIGERATION (1948) — C VIII JamH
(Air Age Physics-Heat)
66 frames.
How electrical refrigerator works. Demonstration of cooling effect of evaporation as used in refrigeration. Industrial applications of refrigeration. Heat pumps. Operation of gas flame refrigerator. Gas refrigeration applied to everyday living.

3900. REFUELING THE AIRPLANE (1942) — A VI 1 JamH
(Aircraft Engine Mechanics Series)
64 frames.
Responsibility for refueling. Preparations before refueling. Safety measures. Equipment required. Step-by-step procedure. Grounding hose nozzle and plane. Avoiding static electricity. Keeping gasoline clean. Handling fuel hose.

3901. RENAISSANCE VENICE (1951) — A IX 2 LIFE
49 frames; color.
Venetian Republic in days of its glory; photographs and paintings present physical appearance of city; its government, trade, religion, private and public life. Art of the era.

3902. REPAIRING SHEET METAL SURFACES (1942) — A VI 1 JamH
(Aviation Metalsmiths Series)
60 frames.
Classification of sheet metal repairs most often needed; how to make them. Changing specifications. Removing dents. Repairing cracks; holes. Replacing panels. Safety precautions.

3903. REPORT CARD COMES HOME, THE (1951) — A I 1 Wayne
38 frames.
How parents can help make the school's reporting system a contribution to child's classroom progress. Purposes and procedures of school reporting.

3904. RESIDENTIAL GAS SALESMANSHIP (1946) — A VI 1 AmGasA
Sound; 90 min.
Unit I: Win Confidence Quickly. Correct selling methods increase sales; start with right approach; find out each customer's specific needs. How to get people to listen; how to get people to believe.
Unit II: Sell the Service. What people want; convenience, cleanliness, economy and beauty of modern gas appliances; idea of coordinated gas kitchen; benefits of gas for big jobs in home.
Unit III: Show and Explain. Salesman should know gas appliances thoroughly; "sales-slant" demonstrations; show how each appliance performs; explain how it will benefit customer. Get customer to participate in demonstration.
Unit IV: Complete the Sale. Average customer hesitates before buying; best move is to keep on selling. "Personalize" benefits to customer; make price or estimate lead to close; close normal sales.
Unit V: Close the Hard Ones. Expect resistance and prepare for it; handle difficult customers smoothly; take awkward situations in stride; use objections to help sale; choose the correct closing method.
Unit VI: Plan for More Sales. Sales manage time; go after multiple sales; systematize prospect-hunting; pick up live leads.

3905. RIB STITCHING (1942) — A VI 1 JamH
(Aircraft Mechanics Series)
47 frames.
Cutting of anti-tear strips from airplane cloth for wings. Applying and doping strips. Use of reinforcing tape. Applying tape. Stitching technique detailed.

3906. RIGGING CHANGES AFTER FLIGHT CHECK (1942) — A VI 1 JamH
(Aircraft Mechanics Series)
43 frames.
Causes of common faults in rigging; how to correct them. Nose heaviness, improper loadings, heavy tail or wings, misalignment of fuselage. Dangers of improper rigging. How to overcome swerving, yawing, ground looping.

3907. RIGHT DRESS (1945) — A II 7c NSC
(Safety Management for Foremen)
Sound; 20 min.*
Common types of personal protective equipment; on what jobs each type should be used.

3908. RINGS, THE RACCOON (1950) A IV 2 JamH
(Animal Stories Series)
26 frames; color.
Rings, raccoon, awakens from winter's sleep; educates her family. When their home is threatened, she removes her young to safety.

3909. RIVETS AND RIVETING (1941) A VI 1 JamH
(Bench Work)
76 frames.
Kinds of rivets. Tools used. Methods of riveting. Causes of failure.

3910. ROADSIDE MARKETING (No. 273) (1939) D I 3 USDA
51 frames.
Several kinds of roadside stands; how they may be made attractive with respect to location, display, signs and advertising. Charts of data from a number of stands show distribution of a day's sales, of the days of the week, of the months of the year, and of a year.

3911. ROBERT KOCH (1941) A IX 2 METL
(Health Heroes Series)
54 frames. **
Story of naturalist who became father of bacteriology and opened new era in science.

3912. ROMANCE OF GLOVES, THE (1949) A VI 1 NaAIGM
Sound; 15 min.; color. **
Tanning of leather; manufacture of leather gloves; fashions; how to wash gloves.

3913. ROTARY MOTION (1943) C VIII JamH
(Air Age Physics--Mechanics)
58 frames.
Radian measure. Angular velocity and acceleration. Moment of inertia. Comparison of formula for linear and circular motion.

3914. RURAL COLONIAL AND EARLY AMERICAN HOMES AND GARDENS (No. 331) (1936) A IX 1 USDA
63 frames.
Exteriors and interiors of American homes of interest because of their historic and architectual values.

S

3915. SAFE ALL AROUND (1941) A II 7a NSC
Sound; 20 min. *
Off-the-job accidents: in kitchen, bathroom, basement, garage, yard. How to eliminate home hazards.

3916. SAFE FOOD AND GOOD HEALTH (1945) A III 3 USPHS
(Our Health is in Your Hands Series)
Sound; 15 min. **
Advice on safe buying, preparation, serving of food; how to protect it from contamination.

3917. SAFE HANDLING OF MATERIALS (1945) A II 7c NSC
(Worker Training Course)
Sound; 15 min. *
How to lift and carry; how to avoid sprains, strains, hernias, mashed fingers and toes. Protective clothing.

3918. SAFE HAULAGE IN COAL MINES (1949) A II 7c NSC
17 frames. *
Actual accident experiences; maintenance hazards of motors and cars.

3919. SAFE IN HAND (1946) A II 7c NSC
(Worker Training Course)
Sound; 24 min. *
Part I: Machinists' tools. Hammers, chisels, wrenches, pliers, screwdrivers, files, hacksaws. Importance of selecting right tool for job, of keeping it in good condition, of handling it correctly.
Part II: Maintenance tools. How to use saw, axe, hatchet, pinch bars, crow bars, pipe wrenches, jacks. Importance of using right tool for job, correctly; and keeping it in safe place.

3920. SAFE WAY TO SCHOOL, THE (1951) A II 7 b JamH
(At Home and School with Tom and Nancy Series)
24 frames; color.
Tom and Nancy observe safety rules on way to school. Classroom duties; recess. They share a Peter Rabbit doll.

3921. SAFELY WE WORK (1944) A II 7c NSC
Sound; 15 min. *
How to get on and off a moving railroad car; how to climb tank ladders. Hand, power and air brakes; walking between and across tracks; coupling and cutting cars.

3922. SAFETY AT SCHOOL AND AT PLAY (1946) A II 7b YAF
(Living Safely Series)
39 frames.
Common causes of accidents at school and at play; safety rules to follow in school gymnasium, playgrounds, corridors, stairs.

3923. SAFETY CASE HISTORIES (1948) A II 7c NSC
(Human Factors in Safety Series)
Sound; 30 min. *
Actual accidents that were caused by human factors. (Audience participation in discussion of causes invited).

3924. SAFETY FACTORS (1941) A VI 1 JamH
(Automotive Mechanical Training Series--General Service)
77 frames.
Maintenance of brakes, steering gear, horn, lights, and windshield wiper.

3925. SAFETY IN THE HOME (1946) A II 7a YAF
(Living Safely Series)
42 frames.
Chief causes of accidents and accidental deaths in the home; how every member of family must do his part toward effective home safety.

3926. SAFETY INSPECTION (1945) A II 7c JamH
(Wood Shop--Basic Shop Safety)
53 frames.
Student safety engineer: job. Suggested duties of safety engineer. Selling safety. Getting cooperation from others. Making daily safety inspection.

3927. SAFETY IS IN ORDER (1945) A II 7c NSC
(Safety Management for Foremen)
Sound; 20 min. *
Good housekeeping, from the foreman's angle; how good order saves space, time and material.

3928. SAFETY ON THE STREETS (1946) A II 7d YAF
(Living Safely Series)
46 frames.
Motor vehicle accidents as cause of death; principal causes of such accidents. Safe ways of riding bicycle on street; safe rules for pedestrians to follow.

3929. SARAH BLAKE (Tardy Employee) (1949) A VI 1 McG-H
(Human Relations in Supervision (Case Problems) Series)
Sound; 3 min.
Sarah promises to come at 7:00 a.m. Saturday morning for overtime run. No replacements can be counted on during working hours; absenteeism cripples production. When Sarah fails to arrive by 7:30, supervisor telephones another employee to come. Both girls arrive. Sarah explains her alarm clock didn't ring, she tried unsuccessfully to phone the plant, then came to work by taxi. Supervisor has only one job available.

3930. SAVE WORK IN DOING DAIRY CHORES (No. 674) (1947) D I 3 USDA
59 frames.
How one Vermont farmer studied his way of doing dairy-barn chores and made improvements that saved two hours and five minutes of time daily and two miles walking.

3931. SAVING AND INVESTMENT (1950) A VII McG-H
(Economics Series)
47 frames.
How level of national income is determined by interplay of saving and investment; how affected by government expenditures and taxation. Multiplier effect defined; its impact on national income discussed.

3932. SAWMILL SAFETY (1944) A II 7c NSC
Sound; 17 min.*
Precautions head sawyer, doggers and tail sawyer must take to prevent accidents in sawmills. Guards on gears and shafts. Precautions to be taken around edgers, cutoff saws, small pull saws, planers, piling machines, cranes, carriers. Advisability of good housekeeping and use of personal protective equipment.

3933. SCALES AND MODELS (1943) C VII 3 JamH
(Light on Mathematics-Geometry)
83 frames.
Story behind scales and models. Bringing "too big" and "too small" into easy focus. How to plan, use, understand, these valuable aids.

3934. SCHOOL--THE CHILD's COMMUNITY, THE (1952) A I 1 Wayne
16 min.
How school can provide education for citizenship and living in fullest sense. Many ways in which school can encourage children to accept responsibility and share in decisions. Student participation in "community" activities.

3935. SCHOOLGROUND DISCOVERER (1946) A VI 4 S-M
(Child Cooperation and Self-Discipline Series)
21 frames.
Problem of untidy schoolground; obvious solution indicated.

3936. SCIENCE (No. 32) (1951) A IV 2 CurrF
224 frames; color.
Nine strips; basic facts of certain areas of science, placed in social context; as follows: (255) What Is In the Sky? (256) How Our Earth Began; (257) About Our Earth; (258) Our Earth Is Moving; (259) Our Changing Earth; (260) The Beginning of Life; (261) Animals of Long Ago; (262) Man of Long Ago; (263) Parts of a Flowering Plant.

3937. SCIENCE OF SEEING (1951) C VIII GE
65 frames.**
Relation between lighting and seeing explained (nontechnical); eye deficiencies by age groups. How to avoid eyestrain and improve efficiency.

3938. SCIENCE REVIEW (1946) A IV 2 POP
(On the Farm with Tom and Susan Series)
36 frames.
What two children learned (elementary science) in summer vacation on a farm.

3939. SCRAPING (1941) A VI 1 JamH
(Bench Work)
69 frames.
Why scraping is necessary. Tools used. Techniques of scraping and checking finished work.

3940. SECRET OF HOT WATER MAGIC, THE (1948) — A IX 1 PCGA
Sound; 16 min.; color.
Discarded water heater recites tribulations of undersized obsolete water heater and joy of family when new heater of adequate size is installed. Cartoon.

3941. SECRET OF SUPER-VISION (1948) — A II 7c NSC
(Human Factors in Safety Series)
Sound; 15 min. *
Dramatization showing why people will work hard for some supervisors and rebel against others.

3942. SEE FOR YOURSELF (1945) — C VIII BLBS
15 min.; sound.
Development of artificial lighting; before-and-after home lighting conditions; effect on family health and safety. Light meter introduced to gauge proper illumination for each seeing task; heavy burden of work human eyes are called upon to do, explained.

3943. SELECTING AND JUDGING BREEDING HOGS (No. 142) (1939) — D I 2 USDA
31 frames.
Certain points observed in scoring various parts of two types of hogs (lard type and bacon type) raised in the United States.

3944. SELECTING HENS FOR EGG PRODUCTION (No. 126) (1940) — D I 2 USDA
55 frames.
How to tell laying hen from nonlayer; how molting and bleaching index egg production; how to improve flock by selecting and breeding.

3945. SELECTION AND APPLICATION OF A-C POLYPHASE INDUCTION MOTORS (1951) — A VI 1 GE
(Motor Selection and Application Course)
Sound; 15 min. *
Driven machine, motor horsepower, electrical characteristics, control equipment and mechanical factors to be considered in selection of A-C polyphase induction motor.

3946. SELECTION AND APPLICATION OF ADJUSTABLE-SPEED DRIVES (1951) — A VI 1 GE
(Motor Selection and Application Course)
Sound; 15 min. **
Driven machine, motor horsepower, electrical characteristics, control equipment to be considered in selecting and applying adjustable-speed drives. Advantages of alternating current motor, speed variator, thy-mo-trol and electronic speed variator.

3947. SELECTION AND APPLICATION OF DIRECT CURRENT MOTORS (1951) — A VI 1 GE
(Motor Selection and Application Course)
Sound; 15 min.
Factors to be considered in selection and application of direct current motors: machine to be driven, motor horsepower wanted, electrical characteristics (flexibility of direct current motor stressed), control equipment, mechanical factors.

3948. SELECTION AND APPLICATION OF GEAR-MOTORS (1951) — A VI 1 GE
(Motor Selection and Application Course)
Sound; 15 min. **
Three classes of gear motors. In selection of gear-motors two problems are involved: motor and gear component. Five basic steps in selection. Significance of maxium peak load. Physical construction features of gear-motors.

3949. SELECTION AND APPLICATION OF SINGLE-PHASE INTEGRAL HORSEPOWER MOTORS (1951) — A VI 1 GE
(Motor Selection and Application Course)
Sound; 15 min. **
Factors to be considered in selecting single-phase integral horsepower motor: machine to be driven, motor horsepower needed, control equipment and mechanical factors.

3950. SELECTION AND APPLICATION OF SYNCHRONOUS MOTORS (1951) — A VI 1 GE
(Motor Selection and Application Course)
Sound; 15 min.
Factors to be considered in selection and application of synchronous motors: machine to be driven, motor horsepower wanted, electrical characteristics, control equipment, mechanical factors. Advantages of synchronous motors.

3951. SELECTION AND CULLING OF POULTRY (1951) — D I 2 UofNeb
43 frames; color. *
Six types of standard bred chickens with common disqualifications; general disqualifications for all chickens; several individual White Rocks and Leghorns, male and female, for judging; importance of constitutional vigor, pigmentation, order of moult, head types, reproduction capacity.

3952. SELLING YOURSELF TO AN EMPLOYER (1951) — A VI 1 McG-H
(Business Etiquette, Set I)
42 frames.
Approach to interview; possibility of brief test. Principles of etiquette involved in interview and follow-up.

3953. SEMI-SKILLED OCCUPATIONS (1942) — A VI 5 MAHNKE
117 frames.
Part I: Jobs in radio and electric motor, clothing, cloth manufacturing, rolling mill operation.
Part II: Jobs in railroading and auto manufacturing, agriculture, bakery, printing, steel, woodworking, etc.

3954. SERVANT OR DESTROYER (1948) — A II 7 c AmPetrol
Sound; color.
Fire hazards accompanying use of petroleum products; proper ways to store gasoline and kerosene; improper practices in handling cleaning fluid, kerosene and gasoline on farms, in garages, in homes.

3955. SERVICE OCCUPATIONS (1942) — A VI 5 MAHNKE
60 frames.
Types of service jobs in many industries and homes; beautician, hotel and restaurant jobs, etc.

3956. SERVICE WITH A SMILE (1945) — A II 3 USPHS
(Our Health Is in Your Hands Series)
Sound; 15 min.**
Why personnel of eating and drinking establishments should pay attention to personal health, to ways to keep well and to safe, clean practices in serving food.

3957. SERVICING HYDRAULIC SYSTEMS (1942) — A VI 1 JamH
(Aircraft Engine Mechanics Series)
47 frames.
How hydraulic system operates retractable landing gear, brakes, wing and cowl flaps, bomb doors, gun turrets, propeller pitch, and wing folding mechanism. Steps in routine check, repair and replacement. Tracing common causes of trouble.

3958. SERVICING THE OIL SYSTEM (1942) — A VI 1 JamH
(Aircraft Engine Mechanics Series)
41 frames.
Checking and adding oil. Choosing right oil. Checking oil for water. Recording oil added. Changing oil. When and how changed. Draining off old oil. Inspecting old oil. Refilling.

3959. SETTING UP AND LIGHTING THE WELDING TORCH (1942) — A VI 1 JamH
(Oxyacetylene Welding--Special Practice)
65 frames
Use of welding equipment. Safety precautions.

3960. SEXUAL REPRODUCTION IN PLANTS (1945) — C III DeK
106 frames; color; silent. **
Sexual reproductive system of self-pollinated, cross-pollinated and dioecious plants (farm crops).

3961. SHAPERS (1941) — A VI 1 JamH
(Introduction to Machining Series)
42 frames.
Shaper; basic parts and functions. Shaper tools. Types of work performed. Safety hints.

3962. SHARE THE BALL (1946) — A VI 4 S-M
(Child Cooperation and Self-Discipline Series)
32 frames.
Reasons for sharing school materials: by sharing ball, children have more fun and more time to play.

3962 1/2. SHARE THE SAND-PILE (1946) — A VI 4 S-M
(Child Cooperation and Self-Discipline Series)
26 frames.
Children's experiences in playing together in sandpiles; difficulties regarding territory, who shall play where, resultant quarrels, etc. Teacher suggests what children can do to play together happily.

3963. SHELLFISH OF THE SEASHORE (1948) — C II JamH
(Water Life Series, No. 7)
67 frames.
Shells along seashore; clams, oysters, mussels; lobsters, shrimps, crabs. Habits of seacoast shell fish. Food value.

3964. SHOCK (1942) — A II 5 JamH
(First Aid Series)
26 frames.
How to recognize and treat victims of shock.

3965. SHOCK ABSORBERS (1941) — A VI 1 JamH
(Automotive Mechanical Training Series--Mobility Factors)
50 frames.
Types and uses of shock absorbers.

3966. SHOCK ABSORBERS (1941) — A VI1 JamH
(Automotive Mechanical Training Series--Servicing the Mobility Factors)
58 frames.
General service and repair instructions for both single and double acting shock absorbers, U. S. A. makes for 1936, 1937, 1938.

3967. SHOP TEACHING (1942) — A VI 1 JamH
(Informal Pointers for Teachers, No. 7)
Sound: 20 min.; or silent, 44 frames.
Formal preparation of shop lessons; how to demonstrate.

3968. SHOPPING IN OUR NEIGHBORHOOD (1947) — A IX 1 POP
(Community Helpers Series)
39 frames.
Shopping in a General Store; in other types of shops. Clerks as community helpers.

3969. SIMPLE MACHINES (1943) C VIII
(Air Age Physics--Mechanics) JamH
84 frames.
Elementary machines: pulleys, inclined plane, wheel and axle, differential pulley, levers (three classes). Mechanical advantages. Input. Output. Efficiency.

3970. SIMPLE WAY TO IRON A SHIRT, A (No. 649) (1944) A III 2 USDA
44 frames.
Quick, simple method of ironing men's shirts. How to improve looks of shirt by proper washing; loosen soil by mild bleaching of soiled areas and light scrubbing with soap and brush. Convenient ironing equipment which produces minimum of fatigue, eliminating extra movements and increasing output. How to fold shirts to add to appearance and conserve drawer space.

3971. SINCERITY (1946) A VI 1
(Behind the Counter, No. 4) JamH
Sound; 10 min.
How to make customers feel that salesperson is truly sincere in desire to serve (not just selling bill of goods). Four ways of assuring future sales by sincerity.

3972. SING A SONG OF SAFETY A II 7a
Sound; words and music; (cartoon illustrations); color, in four parts, as follows: POP
Part I: (56 frames): (1) An Automobile Has Two Big Eyes; (2) When You Ride a Bicycle; (3) Talking to the Driver; (4) Let the Ball Roll; (5) When You're Watching a Parade.
Part II: (57 frames): (1) Remember Your Name and Address; (2) Stay Away from the Railroad Tracks; (3) Keep to the Right--Ice Skating is Nice Skating; (4) A Goof Plays on the Roof; (5) Hot and Cold Water.
Part III: (56 frames): (1) Sticks and Stones and Bones; (2) Leaning Out of Windows; (3) Striking Things; (4) Never Be Afraid of Anything; (5) When You Swim.
Part IV: (58 frames): (1) Johnny Climbs Fences and Johnny Climbs Walls; (2) Pins and Needles, Needles and Pins; (3) Pop-Guns and Rifles; (4) Heroes of Peace.

3973. SINGLE-STROKE GOTHIC--INTRODUCTION (1947) A IV 3 JamH
(Technical Lettering Series)
59 frames.
Lettering defined; uses of lettering; Gothic, Roman, old English letters. Adaptation of single-stroke Gothic for engineering drawings. Analysis of lettering. Characteristics of single-stroke letters. Spacing, height, density. Similarities between letters. Using guide lines and materials.

3974. SKILLED OCCUPATIONS (1942) A VI 5
114 frames. MAHNKE
Part I: Welders, machine tool operators, grinders, riveters, drill pressmen; jobs in aluminum, various types of glass production, jewelry, tool and pattern making, etc.
Part II: Jobs in radio and telephone, building crafts, meat packing, baking, aviation and manufacturing, etc.

3975. SLEEP AND REST (1950) A II 2
(Health Adventures, Part II (The Body)) JamH
57 frames; color.
Why human being needs sleep and rest; what happens to body during sleep. How to rest and sleep well.

3976. SLIDE, THE (1946) A VI 4
(Child Cooperation and Self-Discipline Series) S - M
33 frames.
Slide as speaking character demonstrates how sharing benefits all; by taking turns, children find more time for everyone to play. Well-founded reasons behind safety rules.

3977. SLIDE RULE, THE (1951) C VII
(Mathematics, Set II) McG-H
24, 27 frames.
Part I. Construction of slide rule explained; component parts examined; simple problem in multiplication worked out. Division similarly handled.
Part II. Problems demonstrate flexibility of slide rule. How previously acquired knowledge can be applied in new situations. Problems in square root.

3978. SLIDEFILM IN TEACHING, THE (1946) A VI 3 YAF
(Audio-Visual Series)
46 frames.
Nature and purpose of filmstrip as teaching aid; applications and techniques of use in education; relation to other teaching tools.

3979. SLOTTED ANCHOR PLATE (1942) A VI 1 JamH
(Aviation Metalsmiths Series)
40 frames.
Proper use of layout tools and procedure in roughing out fittings. Drilling small holes and hacksawing slotted metal. Cutting large holes and use of round and half round files.

3980. SMALL CITY AUDIO-VISUAL AIDS DEPARTMENT, THE (1949) A VI 3 YAF
(Audio-Visual Series)
40 frames.
How small-city school system (Dearborn, Michigan) organizes and administers its audio-visual aids program; how in process it meets and solves some problems peculiar to small city.

3981. SMALL FRESH-WATER ANIMALS AND INSECTS (1948) C II JamH
(Water Life Series, No. 2)
60 frames.
Smallest animals of ponds, lakes and streams seen through microscope and reading glass;

why tiny fresh-water animals are important; water insects that fly; other water insects.

3982. SMART DRIVING (1949) A II 7d
56 frames. NHUC
Over-all view of highway transportation, emphasis on accident problem and safe-driving technics.

3983. SOIL, THE (1947) C VI
(Our Earth Series) JamH
66 frames.
Where soil comes from; how made; why important; value of soil conservation programs.

3984. SOIL AND WATER CONSERVATION (1950) D I 1 UofNeb
55 frames; color.*
Introduction to problems of soil and water conservation from examples in Great Plains area.

3985. SOIL AND WATER CONSERVATION BY THE BEAVER (No. 502) (1938) D I 1 USDA
48 frames.
History, habits, economic relations of beaver, with particular reference to farm and forest lands. How new colonies are established by livetrapping and transplanting.

3986. SOIL CONSERVATION BENEFITS WILDLIFE (No. 558) (1939) D I 1 USDA
31 frames.
How nature reclaims areas saved by soil conservation; so provides cover for game, fish, wildlife.

3987. SOIL EROSION AND ITS CONTROL IN ORCHARDS (No. 611) (1941) D I 1 USDA
38 frames.
How run-off and wind ruin orchards by gullying and by drifting soil; how such erosion can be controlled.

3988. SOIL EROSION IN THE UNITED STATES (N0. 467) (1937) D I 1 USDA
48 frames.
Man-made erosion causes vast losses in land and crops and lowers living standards.

3989. SOLDERING (1942) A VI 1
(Aircraft Mechanics Series) JamH
71 frames.
Solder, definition. Uses, methods, flux, types. Application. The copper, definition. Heat sources for soldering. Bit. Steps in soldering. Preparing bit. Soldering cables, terminals, taps and splices. Soldering sheet metal. Safety precautions.

3990. SOME METHODS OF ESTIMATING MILK QUALITY BY BACTERIAL TESTS (No. 170) (1939) D I 2 USDA
49 frames.
Steps in three tests for estimating bacteria in milk and counting colonies. Utensils and surroundings must be clean to assure high-quality milk.

3991. SOME PRINCIPLES OF TEACHING (1942) A VI 1 JamH
(Informal Pointers for Teachers No. 2)
56 frames.
Seven suggestions on how teacher can help shorten learning process.

3992. SOUND (1945) C VIII
30 frames. Also available in glass slides.** GE
Physical properties and characteristics of sound waves; telephone and carrier-current communication.

3993. SOUND BUSINESS (1938) A VI 1
Sound; 20 min.** CINBTC
How to use the telephone correctly in banking business; importance of promptitude, courtesy, attentive listening, clear speaking, etc.

3994. SOUTHERN PINES PAY (No. 595) (1940) D I 5 USDA
50 frames.
How idle land may be turned to profit by planting to pines that yield turpentine, timber, and other crops within a few years; how to protect stands against fire.

3995. SOUTHWEST U.S.A. (1949) A IX 1
(American Scenes and Cities Series) CAS
39 frames; color.
Scenes of New Mexico, Arizona, Nevada, Utah, and California: inside Carlsbad Caverns; Sante Fe, original Palace of the Governors; giant and miniature cacti of Arizona; Painted Desert; Petrified Forest; Zion National Park; Hoover (Boulder) Dam; and Death Valley. Ancient Indian dwellings; strange formations of land and rocks.

3996. SPANISH EXPLORERS (No. 33) (1951) A IX 2 CurrF
150 frames; color.
Six strips; main facts of early Spanish exploration of America; the explorers, their adventures, their way of life as follows: (264) Columbus; (265) Cortes; (266) Balboa and Pizarro; (267) De Leon and De Soto; (268) Coronado; (269) Magellan.

3997. SPARK PLUGS (1939) D I 1
(Tractor Maintenance Kit) ETHYL
21 frames.
Construction of spark plugs explained: parts shown. Types of spark plugs. Effect of heat and cold on plugs. How to clean, install, adjust plugs. How to select plugs according to speed, load, type of fuel.

3998. SPECIAL EDUCATION FOR SPECIAL NEEDS -- THE PHYSICALLY HANDICAPPED (1952) A II ACE
58 frames.
Some important aspects of special education provided for physically handicapped in the United States. Dual contribution of such education to welfare of individual and community.

3999. SPECIALIZED MACHINES (TURRET LATHES) (1941) A VI 1 JamH
(Introduction to Machining Series)
31 frames.
What turret lathe is; what can be done with it. Automatic screw machine; functions. Relationship to lathe work.

4000. SPECIFIC GRAVITY OF SOLIDS AND LIQUIDS (1946) C VIII JamH
(Air Age Physics - Fluids)
83 frames.
Specific gravity provides means of identifying materials. Finding specific gravity of solids; of liquids. Bottle method. Loss-of-weight method. Hydrometer method. Problems. Application.

4001. SPLICING A LINE (1942) A VI 1 JamH
(Aircraft Mechanics Series)
63 frames.
How to join two pieces of line together in splice. Tools needed. Knacks used to make good splice. Cautions to help mechanic avoid mistakes in splicing. Definitions of terms used in line splicing.

4002. SPOT PRINTING AND DODGING (1949-50) E IX McG-H
(Photographic Darkroom Procedures Series)
42 frames.
Techniques of print improvement, how accomplished. Various examples of negatives requiring either greater or less exposure through selected areas of negative. Values of techniques shown by comparison of prints made from negatives with and without projection control.

4003. SPOTTING OF PRINTS (1951) E IX McG-H
(Photographic Darkroom Procedures, Series II)
58 frames.
Techniques of eliminating small black or white spots from print by abrasion, chemicals, spotting dyes, paints.

4004. SPRAY-PAINTING EQUIPMENT (1942) A VI 1 JamH
(Aircraft Mechanics Series)
61 frames.
Typical spray painting outfit; how it works. Types aircaps; internal mix, external mix, and suction. Gun construction and use. Cups, suction, gravity, pressure feeds. Tanks; agitators, air and fluid hoses. Types and construction. Transformers and condensers. Cutaway sections of all principle parts.

4005. SPRINGS (1941) A VI 1 JamH
(Automotive Mechanical Training Series - Mobility Factors)
91 frames.
Principles of spring suspension. Types. "Knee-action."

4006. STABILITY (1942) A VI 1 JamH
(Aircraft Mechanics Series)
50 frames.
Definition and examples of negative, neutral and positive stability. Airplane positive longitudinal stability. Lateral stability in roll, and controls. Directional stability; controlling factors. Corrections to increase stability. Relation of loads to stability.

4007. STANDARD BREEDS OF POULTRY (No. 133) (1940) D I 2 USDA
48 frames.
Standard varieties of poultry, male and female; the parts of fowls named.

4008. STARTING MOTOR, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series - Electrical System)
87 frames.
General principles, construction, and operation of starting motor. Bendix drive, mechanical shift; solenoid applications.

4009. STARTING SYSTEM CONTROLS (1952) C VIII McG-H
(Automotive Mechanics, Set II)
27 frames.
Controls described and operation explained: foot-operated switch, magnetic switch, solenoid, solenoid relay, diaphragm vacuum switch, ball-type vacuum switch, series-parallel starting switch for 12-24 volt heavy-duty applications.

4010. STARTING SYSTEM DRIVES (1952) C VIII McG-H
(Automotive Mechanics, Set II)
29 frames.
How gear reduction increases torque; reason for high gear ratio between starting-motor pinion and gear teeth on flywheel; operation of two general types of drive.

4011. STARTING SYSTEM PRINCIPLES (1952) C VIII McG-H
(Automotive Mechanics, Set II)
29 frames.
How force on current-carrying conductor held in magnetic field is used to make armature rotate in electromagnetic field. Series-wound, automotive-type motor described. Commutation, torque and no-load tests explained.

4012. STATIC ELECTRICITY (1941) C VIII JamH
(Basic Electricity Series)
73 frames.
Electron theory of positive and negative charges.

4013. STEERING GEAR, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series - Servicing the Mobility Factors)
116 frames.
Removal, disassembly, inspection, reassembly, and adjustment of worm and straddle mounted sector type of steering gear used on 1937 trucks and conventionally sprung passenger cars and 1938 and 1939 trucks, plus information on 1940 and 1941 trucks, U.S.A. makes.

4014. STEINMETZ (1949) A IX 1 GE
31 frames. Also available in glass slides. **
Life story of Charles Proteus Steinmetz; his rise against handicaps to eminence as scientist and engineer.

4015. STEP-SAVING U KITCHEN, A (No. C-1) (1949) — A III 1 USDA
40 frames; color.
Details of step-saving U kitchen, built in laboratories of the Bureau of Human Nutrition and Home Economics, USDA, and designed according to work-simplification principles.

4016. STOP, LOOK AND LISTEN (1945) — A II 7c NSC
(Safety Management for Foremen)
Sound; 20 min.*
What foreman's safety committee should look for; how hazards should be pointed out to foreman for his action.

4017. STOP THE FIRE THIEF (1950) — A II 7c NSC
(Worker Training Course)
Sound; 13 min.*
Causes of industrial fires; how safe practices will eliminate those causes. Improper handling and storage of flammable liquids, defects in electrical equipment, welding torch sparks, open heating equipment, smoking and poor housekeeping.

4018. STORAGE BATTERY, THE (1941) — C VIII JamH
(Basic Electricity Series)
83 frames.
Construction and use of commercial storage battery.

4019. STORAGE BATTERY OPERATION (1952) — C VIII McG-H
(Automotive Mechanics, Set I)
48 frames.
Construction of automobile storage batteries explained; purpose of each part. Various battery ratings described. Battery-voltage variation under various operating and battery conditions. Self-discharge; methods of performing high-discharge test.

4020. STORAGE BATTERY PRINCIPLES (1952) — C VIII McG-H
(Automotive Mechanics, Set I)
35 frames.
Construction and chemical activity of automobile storage battery. Effects of charging and discharging shown; explained in terms of electro-chemical activity. Specific gravity; hydrometer; gravity related to state of charge. Battery action under various loads demonstrated.

4021. STORIES ABOUT PETS (No. 63) (1951) — A IV 2 CurrF
150 frames; color.
Six strips: tales for children and their pets--cats, kittens, dog, raccoon, hamster; close-up photographs show needs of these animals, how children should take care of them; as follows: (493) Mama Cat's Babies; (494) The Curious Kitten; (495) Whitey's Big Day; (496) The Lost Hamster; (497) Andy's Raccoon; (498) Too Many Pets. For young children.

4022. STORIES OF THE CONSTELLATIONS (1947) — C I JamH
(The Sky Series)
63 frames.
Legends associated with star constellations identify principal star constellations seen in Northern Hemisphere.

4023. STORIES TO READ (No. 5) (1951) — A IV 2 CurrF
300 frames; color.
Stories about children or animals; social relationships. In twelve strips (lessons in reading, reading readiness, language arts), as follows: (41) The Biggest Frog in the World; (42) Lazy Laddie; (43) Jealous Laddie; (44) Laddie Gets Lost; (45) Laddie the "Superdog"; (46) Jerry Giraffe and the Zoo; (47) The Dog and the Cat; (48) Bob's Goldfish; (49) John's Sailboat Ride; (50) The Man Who Likes Children; (51) Visiting the Pony Farm; (52) An Afternoon's Fun. For young children.

4024. STORY OF HEIDI (1946) — A IV 2 POP
(Storytelling and Social Studies)
44 frames; color.
Two adventures in the classic story of Heidi, for young children.

4025. STORY OF OUR FOOD, THE (1949) — A III 3 POP
(Living Together in the United States of America Series)
85 frames.
Part I: Where Our Food Comes From: Vegetables from Middle Atlantic states; citrus fruits from California, Texas, Florida; potatoes from Maine and Idaho; corn from Middle West. Meats from Great Plains and "corn belt"; dairy products from Wisconsin and New York; fish from rivers, lakes and oceans. Poultry farms spread throughout the country. Why and how the United States produces so much food. Importations.
Part II: From Farm to Table: How bread is made; how meat is prepared for retail distribution; how milk is processed and delivered. How fruits and vegetables are handled.

4026. STORY OF THE EARTH WE FIND IN ROCKS, THE — C VI JamH
(Our Earth Series)
72 frames.
Fossils, how formed; how rock layers help scientists read earth's history; story of life on earth which scientists have so far been able to put together.

4027. STORY-TIME PICTURE TALES (No. 1) (1951) — A IV 2 CurrF
375 frames; color.
Fifteen favorite stories, as follows: (1) Lazy Jack; (2) The Three Billy Goats Gruff; (3) Change About; (4) The Pied Piper; (5) Cinderella; (6) The Gingerbread Boy; (7) The Ugly Duckling; (8) Mr. Vinegar; (9) Peter Rabbit; (10) The Animal Musicians; (11) Thumbelina; (12) Rumpelstiltskin; (13) Puss in Boots; (14) Jack and the Bean Stalk; (15) The Fisherman's Wife. For young children.

4028. STRATEGY IN SELLING (1940) A VI 1
Sound; 60 min. DARTNELL
Kit of seven filmstrips constituting training course in salesmanship, as follows: (1) Planning the Sale; (2) Getting Better Interviews; (3) Making the Presentation; (4) Disposing of Objections; (5) Closing the Sale; (6) Managing Your Time; (7) The Way to Leadership.

4029. STRESSES IN AN AIRPLANE (1942) A VI 1
(Aircraft Mechanics Series) JamH
64 frames.
What forces and load on parts of airplane make up "stress": pulling, compression, bending, shear, torsion. What kinds of material used in airplane construction stand up best under various stresses. Why these various kinds of material are used where they are used. How to recognize proper place to use right material

4030. STRONG TEETH (1946) A II 2
(Primary Health Series) YAF
36 frames.
Children shown doing proper things to maintain and care for their teeth. They visit dentist regularly, brush their teeth twice daily; eat good healthful foods, avoiding too much candy.

4031. STRUCTURE OF BIRDS, THE (1946) C II
(Basic Bird Study) JamH
56 frames.
Bird's streamlined body; its covering of feathers; wings and tail.

4032. STRUCTURE OF MATTER, THE (1947) C VIII
(Air Age Physics--Matter and Molecules) JamH
67 frames.
What matter is made of; visualizations of molecules, atoms, neutrons, protons, electrons. Incredibly small size of molecules. Electron microscope. Kinetic theory. Molecules always in motion. Evaporation. Sublimation.

4033. STRUCTURE OF THE ATOM, THE (1949) C VIII
(Chemistry Series) McG-H
49 frames.
Modern theory of atomic structure explained in simple detail; visualized by means of diagrams and analogies. Nucleus, proton, neutron, electron, istope, atomic number, mass number, ion, electrovalent bond, ionic bond, and covalent bond defined and explained. Relationship or significance of each term in over-all concept. Isotopes, ions, ionic compounds, molecular compounds, chemical actions. Other particles discovered; still others predicted; their places in atomic structure not yet determined. Constant research of importance to future development and applications of atomic energy.

4034. SUGAR THROUGH THE AGES (1952) C III
50 frames; color. SugReF
Story of sugar, from time when ancient Greeks attributed to it magical powers, to industrial development in the New World. Growing of cane and beet sugar; importance of sugar to human diet; sugar products and by-products found in modern life.

4035. SUN'S FAMILY, THE (1947) C I
(The Sky Series) JamH
42 frames.
Similarities and differences between planets, meteors, and comets, shooting stars, famous meteorites; ancient superstitions.

4036. SUPPLY AND DEMAND (1949-50) A VII
(Economics Series) McG-H
34 frames.
Construction and meaning of demand and supply curves. How elasticity of demand is measured. How equilibrium price is determined in competitive market. Analysis of effect of sales tax on competitive price determination.

4037. SWITCHES, RELAYS AND LIGHTS (1952) C VIII
(Automotive Mechanics, Set I) McG-H
19 frames.
Mechanical and electromagnetic types of switches Action of thermostatic circuit breaker explained. Use of relays to reduce size of wiring and relieve load carried by switches, illustrated with horn relay. Construction of headlight; how it works.

4038. SYNCRO-MESH TRANSMISSION, THE (1941) A VI 1
(Automotive Mechanical Training Series-Servicing Power Transmission Units) JamH
127 frames.
Disassembly, inspection, repair, and reassembly of syncro-mesh transmission U. S. A. automobiles, 1937 to 1938 and 1939; new information on 1940 and 1941 models.

4039. SYSTEMS OF EQUATIONS (1951) C VII
(Mathematics, Set II) McG-H
30 frames.
Concepts of systems of equations: consistent, inconsistent, dependent. Graphs as methods of solving equations. Alternate easier methods demonstrated. Equations in consistent systems solved by addition, subtraction, or by elimination of one unknown and solving for other. Solution by substitution; general method derived.

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4040. "T" SQUARE AND TRIANGLES (1942) A VI 1
(Aircraft Mechanics Series) JamH
85 frames.
Part I: Fundamental uses of "T" square and 45 degree and 30-60 degree triangles. Tools and equipment needed; correct care and usage. Setting up for drawing. Reproducing margins and title block of standard drawing form. Correct use of hands, pencil, triangle, and "T" square in drawing margins. Layout of title block.
Part II: Manipulation of triangle to obtain angle lines. Layout of vertical and horizontal lines. Layout of angle lines.

4041. TAPER TURNING - THREADING (1946) (Safe Practices in Metalworking - Engine Lathe) 91 frames. — A II 7c JamH

Angular turning. Taper turning with compound rest. Taper turning. Offset tailstock method. Cutting external screw threads.

4042. TB -- WHAT IT IS AND WHAT TO DO ABOUT IT (1949) 20 frames; color.** — A II 1 p NatTbA

Essential facts about tuberculosis control.

4043. TEACHER, THE (1942) (Informal Pointers for Teachers No. 1) Sound: 22 min.; or silent, 56 frames. — A VI 1 JamH

Personal characteristics, appearance, bearing, habits, gestures, speech, attitude of teacher, analyzed.

4044. TEACHING A VOCATION (1942) (Informal Pointers for Teachers, No. 6) Sound: 21 min.; or silent, 52 frames. — A VI 1 JamH

Learning through doing; basic safety precautions; the "carry over."

4045. TEACHING SAFETY ON THE JOB (1948) (Human Factors in Safety Series) Sound; 15 min.* — A II 7c NSC

Accidents due to poor or inadequate training of workers; how to prevent them. How to make safety analysis of a job; how to use analysis as basis for job safety training. Prepare, present, apply, test.

4046. TEAMWORK FOR SAFETY (1948) (Human Factors in Safety Series) Sound; 15 min.* — A II 7c NSC

Ways in which shop supervisor may make safety interesting: by holding meetings, encouraging worker suggestions, using safety literature, etc.

4047. TEMPERATURE (1948) (Air Age Physics - Heat) 65 frames. — C VIII JamH

Heat and temperature. Nature, origin, significance of heat as source of energy. How sun's energy is used. How temperature is measured. Types of thermometers.

4048. TEN CHECKS OF ELECTRICAL CONTROL MAINTENANCE (1943) Sound; 15 min.** — A VI 1 WestH

Proper maintenance of electrical control apparatus in industry. Various parts of control apparatus illustrated; methods of inspection, service, adjustment. Views of apparatus before, during and after servicing.

4049. TESSIE TELLER (Slowdown Ordered by Union) (1949) (Human Relations in Supervision (Case Problems) Series) Sound; 3 min. — A VI 1 McG-H

As production falls off, supervisor unable to find reason. When two girls are transferred to help him with back orders, he notices that their output is 15 per cent higher than that of his experienced girls. Staff tells him slowdown is on orders of union steward.

4050. TESTING THE DRINKING DRIVER (1943) Sound; 20 min.* — A II 7d NSC

Scientific tests used by police in the United States in cases of automobile drivers accused of being drunk while driving.

4051. THINKING IN SYMBOLS (1951) (Mathematics, Set I) 27 frames. — C VII McG-H

Familiar applications of mathematical principles; the principles themselves. Use of symbols in mathematics compared to use of highway signs and train signals: primary aim of symbols (immediate recognition and economy of expression).

4052. THOMAS A EDISON (1947) 77 frames. Also available in glass slides.** — A IX 1 GE

Story of Edison's inventions; their impact on American way of life.

4053. THOMAS JEFFERSON - MAN AND PATRIOT (1949) (Great Americans Series) 41 frames. — A IX 1 CAS

Youth of "Long Tom"; his schooling, recreations as a young man. Jefferson as a family man, his personal charm, gracious manner, fluent conversation; writer, lawyer, political genius, gentleman farmer, scientist, inventor, architect, violinist, composer.

4054. THOMAS JEFFERSON - PUBLIC SERVANT (1949) (Great Americans Series) 47 frames. — A IX 1 CAS

Jefferson's political career from justice of the peace (1768) to president of the United States (1801): his part in writing Declaration of Independence; differences in cabinet with Alexander Hamilton; election in 1796 of Adams to presidency. Jefferson's enmity to Aaron Burr; friendship with Lafayette.

4055. THOMAS JEFFERSON, THE FARMER (No. 653) (1944) 63 frames. — A IX 1 USDA

Jefferson interested in many phases of work now pursued by United States Department of Agriculture and landgrant colleges; agriculture basis of Jefferson's philosophy and source of his strength. His enunciation of importance of agriculture to nation's economy; his deep love

of farming; his never-ending search for improved methods, labor-saving implements and machines, and better crops and livestock; his views on agricultural education, experimentation, and cooperative action.

4056. THREE CALENDEERS, THE (Boondoggling) (1949) (Human Relations in Supervision (Case Problem) Series) Sound; 3 min. — A VI 1 McG-H

Studying production reports on calendar machine, incentive operated, supervisor notices variations among three crews in processing. Feels one particular crew could do better. Problem is how to get employees to want to produce up to their normal capacity.

4057. THREES, THE (1947) (Primary Arithmetic Series) 44 frames. — C VII 1 POP

Basic number facts for the 3's; worked into multiplication table (applicable to any other number group).

4058. TIMBER (1944) Sound; 17 min.* — A II 7c NSC

Main causes of logging injuries: falls. How to prevent falls and injuries from axes, saws, "widow makers" rolling logs, lines and gear, cats and trucks.

4059. TOM AND NANCY START THE DAY (1951) (At Home and School with Tom and Nancy Series) 25 frames; color. — A IX 1 JamH

Tom and Nancy wash and dress; eat breakfast; perform home duties, including feeding pets. They bid mother goodbye and are off to school.

4060. TOM, DICK AND HARRY (Speed-Up Claimed by Unions) (Human Relations in Supervision (Case Problems) Series) Sound; 3 min. — A VI 1 McG-H

Operation that has been using three operators daily, each on different shift, is transferred from one department to another; union steward advised. During transfer, productive capacity of equipment is increased; only two men, one to a shift, are required. The three operators consent to changing departments with equipment, but shortly after, one quits job. Foreman decides not to replace him. Received grievance notice claiming speed-up demanding third man be placed back on job.

4061. TOOL BOX (1942) (Aviation Metalsmiths Series) 121 frames. — A VI 1 JamH

Part I: How to lay out, make and assemble bottom, sides, ends and corners for tool box. Reinforcing angles. Laying out lightweight sheet metal for trim, bends, flanges, offsets, hems, beads, slots, corners, and rivet holes. Forming parts by hand shears, squaring shears, hand snips, cornice brake, bar folder, beading rolls. Center punching, drilling, regulating, and riveting of laid out rivet holes.

Part II: Top and tray of tool box laid out on and fabricated from lightweight sheet metal. Scribing center lines to locate positions. Bending top to fifty-four degree angle and illustration of bend angle formula. Laying out and forming of rivet holes, slots, hems and bend lines. Use of tinsmith's oval head rivets. Square drilling and riveting of end pieces.

Part III: Simplicity of hardware design. How to lay out, form and assemble simple hinges, hasps, staples, staple plates, sleeve type handles, handle clips, tray supports and tray stops. Rod work added to sheet metal work. Fitting and setting in place of fabricated hardware. Finished tool box painted and ready for use.

4062. TOOL GRINDER (1944) (Wood Shop--Woodworking Tools and Machines) 63 frames. — A VI 1 JamH

Introduction to tool grinder: Kinds of tool grinders, names and functions of parts. Safe practices for setting up tool grinder; safe practices for using.

4063. TOOLS AND SIMPLE MACHINES (1946) (On the Farm with Tom and Susan Series) 40 frames. — D I 3 POP

Simple tools and machines used on farm. How they contribute to man's leisure.

4064. TRACTOR VALVES (1939) (Tractor Maintenance Film Kit) 34 frames. — D I 1 ETHYL

Types of valves; their functions; various causes of improper functioning; how to eliminate valve trouble.

4065. TRAINING FOR EMERGENCIES (1945) (Wood Shop - Basic Shop Safety) 101 frames. — A II 7c JamH

Emergency services. Clothing caught in machine. Clothing on fire. Using fire blanket. Fire in school shop. Reporting fire. Using fire extinguisher.

4066. TRANSFERRING BEES TO MOVABLE - FRAME HIVES (No. 616) (1942) 36 frames. — D I 2 USDA

How to increase honey supply by modern methods of handling. Method of transferring bees from box hives and log "gums" to modern movable-frame hives; of smoking and drumming out bees, cutting combs to be moved. Apiary built for northern winter; how to shelter it from wind.

4067. TRANSMISSION, THE (1941) A VI 1
(Automotive Mechanical Training Series - Principles of Power Transmission) JamH
60 frames.
Application of power through gear reduction. Simple selective gear transmission.

4068. TRANSMITTING PRESSURE THROUGH LIQUIDS (1946) C VIII
(Air Age Physics - Fluids) JamH
63 frames.
Pascal's law. Hydraulic press. Other applications of hydraulic principle. Meaning of mechanical advantage. Computing mechanical advantage problems.

4069. TRANSPORTATION (No. 16) (1951) A IX 1
252 frames; color. CurrF
Nine strips on how man and his goods are transported in the United States, as follows: (126) Airplanes at Work; (127) Buses at Work; (128) Freight Trains at Work; (129) Harbor Boats at Work; (130) Ocean Ships at Work; (131) Passenger Trains at Work; (132) Roadbuilders at Work; (133) Trailers at Work; (134) Trucks at Work. For young children.

4070. TRANSPORTATION AND COMMUNICATION (No. 29) (1951) A IX 1
225 frames; color. CurrF
Nine strips: everyday significance of land, water, and air transportation, and of early and electrical means of communication; role of transportation and communication in daily lives of American school children; as follows: (228) What Do They Mean to Us? (229) Land Transportation; (230) Water Transportation; (231) Air Transportation; (232) The Story of Trains; (233) Transportation in the United States; (234) Writing and Printing; (235) Early Communication; (236) Electricity in Communication.

4071. TRANSPORTATION IN OUR COUNTRY (1946) A IX 1
42 frames. POP
Development and use of modern transportation; effect of transportation inventions upon life in United States; modern transportation systems and their services.

4072. TRANSPORTATION OF THE INJURED (1944) A II 5
(First Aid Series) SVE
48 frames.
Methods of moving and carrying injured persons.

4073. TRAVEL IS FUN (1947) A IX 1
(Community Helpers Series) POP
72 frames.
Part I: Travel by bus; how bus driver operates vehicle. Traffic signals. Safety precautions. Ferryboat: how manned, piers, etc.
Part II: How telegraph delivery boy travels. Travel by air; by taxi; by subway.

4074. TREAT SEED GRAIN (No. 459) (1938) D I 4
56 frames. USDA
Diseases of cereals and how they are spread; their control by preventive cleaning and treating of seed grain.

4075. TREATMENT FOR BLEEDING - SHOCK-PREVENTING INFECTION (1945) A II 5
(Wood Shop - Basic Shop Safety) JamH
101 frames.
What to do if injured. Preventing infection. First aid for fractures.

4076. TREE PLANTING AND LAND USE (No. 620) (1941) D I 1
54 frames. USDA
Mistakes in land use result in loss of yields and soil; ruined land may still be made useful with plantings adapted to sites and proper care as they develop.

4077. TREE SURGERY (1942) A VI 5
44 frames. MAHNKE
Work in care of trees; jobs in trimming, tree repair, spraying and removal; transplanting and tree feeding.

4078. TRENDS IN LAND USE (1950) A IX 1
57 frames; color. NAREB
Changes that have taken place during the past few decades in land use and values in several cities and suburban areas in various sections of the United States.

4079. TRICHINOSIS, A DISEASE EASILY PREVENTED (No. 573) (1939) D I 2
31 frames. USDA
Stages of the parasite, causes of the disease, its spread and prevention.

4080. TRIGONOMETRY (1943) C VII 3
(Light on Mathematics - Geometry) JamH
45 frames.
Extending scope of geometry. Development of basic relationships. General triangle.

4081. TRIP THROUGH A PIG FACTORY, A (1950) D I 2
Sound; 16 min.; color. RALST
Development of pig embryo during period of gestation; importance of nutrutive aids to sow.

4082. TROOP COMMITTEE AT WORK, THE (1950) A I 5 e
56 frames; color. (5) GScout
What a Girl Scout troop committee is; how it works. How to conduct a troop program, secure community backing, run a troop.

4083. TROOP FINANCING (1951) A I 5 e
47 frames; color. (4) GScout
How to help Girl Scouts learn to handle troop finances; how to draw up a budget, raise and spend money, keep records.

4084. TUBE WELDS - STEEL A VI 1
(1942) JamH
(Oxyacetylene Welding - Further Practice - Steel)
58 frames.
Materials and preparation for tube welding, steel. Specific operations.

4085. TURNING BETWEEN CENTERS - SHOULDERING A II 7c
(1946) JamH
(Safe Practices in Metalworking - Engine Lathe)
81 frames.
Straight turning between centers. Turning a square shoulder. Turning a filleted shoulder. Turning a beveled shoulder.

4086. TURNING TOOLS (1946) A II 7c
(Safe Practices in Metalworking - Engine Lathe) JamH
83 frames.
Tool bit design. Grinding lathe tool bits.

4087. TURRET TOPS (1941) A VI 1
(Automotive Mechanical Training Series - General Service and Sheet Metal Repair) JamH
199 frames.
Part I: Repair - Complete instructions in procedure for repairing damaged turret tops.
Part II: Replacement: Complete instructions in procedure for replacing turret tops damaged beyond repair.

4088. TWOS IN DIVISION, THE C VII 1
(1947) POP
(Primary Arithmetic Series)
46 frames.
Basic concept of division presented for young children; meaning of process; where to place quotient. Manipulative materials and dramatic situations used to objectify concepts.

4089. TWO-SPEED REAR AXLE, THE (1941) A VI 1
(Automotive Mechanical Training Series - Servicing Power Transmission Units) JamH
85 frames.
Disassembly, inspection, reassembly, and adjustment of two-speed rear axle.

4090. TYPE AND ITS ORIGIN B VI 1
(1950) MONSEN
Sound; 16 min.; color.
Development of styles of printing from earliest cave dwellers' pictures to modern type, based on humanistic, gothic, and cursive styles.

4091. TYPES OF DAMAGED KERNELS AND OTHER CONDITIONS (No. C-10) (1950) D I 4 USDA
33 frames; color.
Corn and soybean classes; some of various types of damaged kernels found in commercial lots of wheat, corn, and soybeans.

4092. TYPES OF FUEL SYSTEMS A VI 1
(1942) JamH
(Aircraft Engine Mechanics Series)
63 frames.
Mechanical and gravity type systems and working principles of each. Tanks, sumps, strainers, selector valves, fuel lines, gauges of gravity system. Various types of mechanical pressure systems. Emphasis on Vane pump type. Reliefs, hand or wobble pumps, by-pass valves, fuel units. How system works.

4093. TYPES OF MOTORS (1951) A VI 1
(Motor Selection and Application Course) GE
Sound; 15 min. **
Outline classification of electric motors according to type and application. Torque, speed, temperature allowances, special coverings for motors, motor mounts.

U

4094. UNCONSCIOUSNESS (1942) A II 5
(First Aid Series) JamH
59 frames.
How to handle unconsciousness due to heat stroke, heat exhaustion, apoplexy, and fainting.

4095. UNIFORM MOTION (1943) C VIII
(Air Age Physics - Mechanics) JamH
48 frames.
Straight line motion. Distinction between speed and velocity. Distance, time, velocity. Vectors and composition of vectors.

4096. UNIFORMLY ACCELERATED MOTION (1943) C VIII
(Air Age Physics - Mechanics) JamH
52 frames.
Relation of acceleration to velocity, time, distance. Uniform gain in velocity. Acceleration and deceleration. Positive and negative acceleration. Examples of acceleration. Introduction to gravity. Application to trajectories.

4097. UNITED STATES CITIZEN AND HIS GOVERNMENT, A (1952) A VIII ACE
220 frames; color.
Part I: Meeting the Basic Needs of Citizens.
Part II: Promoting Personal Welfare.
Part III: Promoting Material Welfare.
Part IV: Securing the Blessings of Liberty.
Four filmstrips designed to show kinds of services rendered by local, state and federal governments of the United States; relation of local, state and federal governments to each other; relationship between the services of these

governments and expressed needs of citizens; responsibilities of the individual citizen.

4098. UNITS OF MEASUREMENTS (1943) C VIII JamH
(Air Age Physics - Mechanics)
49 frames.
English system; metric system. Fundamental units, mass length, time. Conversion of English units to metric. Conversion of metric units to English units. Derived units: velocity, force, work, power, area, volume, etc.

4099. UNSKILLED OCCUPATIONS (1942) A VI 5 MAHNKE
54 frames.
Types of work for which little training is required, in 19 different industries.

4100. UP-DRAFT CARBURETOR, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series - Servicing Engine Assembly)
41 frames.
Disassembly, reassembly, adjustment of up-draft carburetor for cab-over-engine trucks.

4101. USE YOUR LIBRARY (1950) A I 2 SVE
77 frames.
How to locate books, pamphlets, periodicals in a library; how to find facts in them when located.

4102. USE YOUR LIBRARY: FOR BETTER GRADES - FUN, TOO (1948) A I 2 KERN
77 frames.*
How to find books; how to find brief facts; how to find magazine articles and pamphlets. Card catalogues, encyclopedias, general reference works, the reader's guide, pamphlet file, explained.

V

4103. VACUUM GEARSHIFT, THE (1941) A VI 1 JamH
(Automotive Mechanical Training Series--General Service and Sheet Metal Repair)
150 frames.
Repair, adjustment, and maintenance of entire vacuum gearshift unit.

4104. VACUUM POWER BRAKES (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Servicing the Mobility Factors)
43 frames.
Maintenance and adjustment of vacuum power brakes.

4105. VALVE OPERATING MECHANISM (1942) A VI 1 JamH
(Aircraft Engine Mechanics Series)
76 frames.
Definition and purpose of valve in internal combustion engine. Position of valves in four engine strokes. Characteristics of various valves and valve operating parts. Functions of valve operating parts. Valve positions in relation to engine operation. Valve timing.

4106. VAPORIZATION (1948) C VIII JamH
(Air Age Physics--Heat)
82 frames.
Evaporation, boiling, sublimation. Examples under varying pressures. Heat of vaporization; its usefulness.

4107. VARIABLES AND COORDINATES (1951) C VII McG-H
(Mathematics, Set I)
Meaning of "function," "variable," "constant." How problems of direct and inverse variation can be solved graphically.

4108. VECTORS (1943) C VII 3 JamH
(Light on Mathematics --Geometry)
55 frames.
Simple means for graphic visualization of three force properties. Concurrent and resultant forces analyzed. Navigation simplified by vectors.

4109. VERTICAL CAPITALS IHT LEF AVW (1947) A IV 3 JamH
(Technical Lettering Series)
53 frames.
Finger motion for producing downward and horizontal strokes. Order and direction of strokes. Shape and proportions of letters. Review and practice.

4110. VERTICAL CAPITALS MN YZXK4 OQCT (1947) A IV 3 JamH
(Technical Lettering Series)
59 frames.
Constructive practice suggestions. Proportions. Comparisons of letters X and Z and others. Succession of strokes. Review of straight line letters. Curved line letters. Quiz and practice suggestions.

4111. VERTICAL CAPITALS 069 83S DUJ PRB (1947) A IV 3 JamH
(Technical Lettering Series)
77 frames.
Types of mistakes resulting from poor lettering. Similarities between 8 and S. Combination curved and straight line letters. Review and quiz.

4112. VERTICAL CAPITALS 725& AND SPACING (1947) A IV 3 JamH
(Technical Lettering Series)
57 frames.
Similarities between numbers. Proportion of fractions. Spacing. Elements of good spacing between letters, words, sentences, lines. Examples of extended and condensed lettering. Effective spacing of letter combinations which present special difficulties. Review and quiz.

4113. VERTICAL WELDS--STEEL (1942) (Oxyacetylene Welding Further Practice--Steel) 41 frames. A VI 1 JamH

Vertical fusion, lap, fillet, cross welding. Inspecting.

4114. VISITING THE FARM (1946) (On the Farm with Tom and Susan Series) 40 frames. D I 3 POP

Children visiting relatives on farm in summer learn how rural differs from urban life. Farm lands and houses; farm animals; farm work. Wild animals in woodland and field.

4115. VOCABULARY OF FREEDOM, THE (1947) (Our American Heritage Series) 46 frames. A VIII POP

Significance of such expressions as freedom of speech, of press, life, liberty, pursuit of happiness, etc. Documents that guarantee these freedoms.

W

4116. WALTER REED (1941) 62 frames. ** A IX 1 METL

Services to humanity rendered by Walter Reed and his associates in their attack on yellow fever.

4117. WASHINGTON, D. C. (1947) (American Scenes and Cities Series) 47 frames; color. A IX 1 CAS

National capital of the United States: the Capitol, Supreme Court, and the White House; Washington Monument, Jefferson Memorial, and Lincoln Memorial. Robert E. Lee's old home on the Potomac, Tomb of the Unknown Soldier, National Gallery of Art, streets and homes in Washington and Old Georgetown.

4118. WE ARE ALL BROTHERS (Revised, 1948) 54 frames; color (partial). B II PAC

Claims of racial superiority disproved by science.

4119. WE LIVE ON A HUGE BALL (1948) (Exploring through Maps Series) 52 frames. CV POP

Concept of latitude; latitude lines in relation to the globe.

4120. WEATHER (1942) (Aircraft Mechanics Series) 77 frames. C VIII JamH

Factors determining weather conditions. Formation of clouds. Ten types of clouds, their movement, customary altitudes, temperatures. Rains, thunderstorms. Weather map interpretation. Weather reports.

4121. WEATHER √ √ (1949) (General Science Series) 72 frames. C VIII EBF

Study of weather; its changes; techniques for predicting and measuring. Meteorological instruments, cycle of solar radiation circulation of atmosphere. Wave cyclone traced and related to observable phenomena.

4122. WEATHERING THE STORMS (1945) Sound;** A II 4d ZurAm

Psychoneurosis defined and described. Misconceptions dissipated. Symptoms. Causes. Treatments. How to avoid psychoneurosis by keeping physically fit, emotionally controlled, good humored and self-confident.

4123. WELDING ALUMINUM FLAT SHEETS (1942) (Oxyacetylene Welding --Elementary Practice) 69 frames. A VI 1 JamH

Characteristics of aluminum. Uses of flux. Making tack, butt, lap, wandering welds.

4124. WELDING ALUMINUM TUBES WITH SHEETS (1942) (Oxyacetylene Welding --Elementary Practice) 32 frames. A VI 1 JamH

Review of aluminum welding properties. Flux. Preparation. Fillet weld. Welding flanges.

4125. WELDING FLAT RIPPLES (1942) (Oxyacetylene Welding --Elementary Practice) 35 frames. A VI 1 JamH

Tools, equipment and materials needed for welding flat ripples.

4126. WELDING STAINLESS STEEL (1942) (Oxyacetylene Welding--Further Practice--Steel) 38 frames. A VI 1 JamH

Tools, materials and equipment for welding stainless steel. Characteristics.

4127. WESTWARD EXPANSION OF THE UNITED STATES (No. 36J) (1951) 229 frames; color. A IX 1 CurrF

Seven strips on westward movement as national growth; basic forces of expansion explained; as follows: (338) Original Thirteen States; (339) Northwest Territory; (340) Louisiana Purchase and Florida; (341) Texas; (342) Oregon Territory; (343) Mexican Cession and Gadsden Purchase; (344) Alaska.

4128. WHAT IS ACCOUNTING? (1949) (Accounting Series) 38 frames. A VI 3 McG-H

Management requires system of continuously recording, presenting, interpreting financial

facts about business; this systematized procedure called "accounting". Duties of accountant; specialization among accountants; various titles (private accountant, controller, public accountant, C. P. A.)

4129. WHAT MAKES RAIN (1949) C VIII
(Elementary Science Series) YAF
40 frames.
Evaporation and condensation as they apply to water cycle.

4130. WHAT NUMBERS MEAN (1947) C VII 1
(Primary Arithmetic Series) POP
41 frames
Numbers (1 to 10) in concrete and semiconcrete forms. Meaning of numbers.

4131. WHAT WOULD YOU DO? A VI 3
(1946) S-M
(Child Cooperation and Self-Discipline Series)
26 frames.
Temper in children problem to all teachers. Two children shown who do things together, but react differently.

4132. WHEAT KERNEL CLASSES AND VARIETIES (No. C-11) (1950) D I 1 USDA
43 frames; color.
Some of the head and kernel characteristics of wheat, with special reference to the Hard Red Winter class.

4133. WHEEL ALIGNMENT AND BALANCE (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Mobility Factors)
110 frames.
Principles behind and governing wheel alignment and front-end angles. Principles of static and dynamic wheel balance.

4134. WHEEL ALIGNMENT (CONVENTIONAL AXLES) (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Servicing the Mobility Factors)
60 frames.
Complete front end and wheel alignment instructions for conventional axles.

4135. WHEEL ALIGNMENT (DUBONNET TYPE KNEE-ACTION) (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Servicing the Mobility Factors)
54 frames.
Complete front end and wheel alignment instructions for Dubonnet type knee-action units.

4136. WHEEL ALIGNMENT (1939 KNEE-ACTION) (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Servicing the Mobility Factors)
48 frames.
Complete front end and wheel alignment instructions for 1939 knee-action units--not Dubonnet type--plus information on 1940 and 1941.

4137. WHEEL BALANCING (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Servicing the Mobility Factors)
58 frames.
Complete instructions for both static and dynamic wheel balancing.

4138. WHEELS, RIMS, AND TIRES (1941) A VI 1 JamH
(Automotive Mechanical Training Series--Mobility Factors)
63 frames.
Types of wheels, rims, tires.

4139. WHEN IT'S YOUR TURN AT THE MEAT COUNTER (No. C-16) (1951) A III 3 USDA
27 frames; color.
Information to assist consumers with purchase of beef. Various Federal grades of beef sold at retail; how beef can best be used by grade and cut. Various retail cuts shown.

4140. WHY ETIQUETTE IN BUSINESS (1951) A VI 1 McG-H
(Business Etiquette, Set I)
32 frames.
What etiquette is; its place in business world. Personal returns of etiquette.

4141. WHY STUDY PHYSICS? (1947) C VIII JamH
(Air Age Physics--Matter and Molecules)
50 frames.
Part physics plays in daily life; vocational applications; usefulness around home; applications in buying; pattern of study.

4142. WILD FRUITS FOR SOIL CONSERVATION (No. 668) (1946) D I 1 USDA
36 frames.
How some eroded and odd areas of wasteland can be used to produce edible fruits for improved human nutrition. In such areas family diet lacks fruits needed for adequate nutrition but native or adopted fruits produced on waste acreage could serve for both land protection and food.

4143. WILDLIFE AND SOIL CONSERVATION (No. 670) (1947) D I 1 USDA
58 frames.
Abundance of songbirds, game, fur-bearing animals, other types of wildlife makes farms

more valuable, farm life more enjoyable. Wildlife helps to protect crops against pests, provides sport and recreation for farm family and friends, adds variety to farm fare, may have real market value. How farmers can increase and protect wildlife by improving land pattern to provide travel lanes and grow suitable vegetation on wasteland, which when properly planted will provide shelter and food for wildlife.

4144. WILDLIFE MANAGEMENT THROUGH SOIL CONSERVATION IN THE NORTHEAST (No. 562) (1939) 50 frames. — D I 1 USDA

Engineering practices and planting which save land, make useless land refuge and source of feed for wildlife.

4145. WIND EROSION: ITS CONTROL ON THE SOUTHERN GREAT PLAINS (No. 456) (1937) 45 frames. — D I 1 USDA

How erosion starts in a number of ways and leaves varied and tragic trail. How to prevent and control it by practices that save rainfall and soil.

4146. WIRING SYSTEM, THE (1941) (Automotive Mechanical Training Series--Servicing the Electrical System) 55 frames. — A VI 1 JamH

Progressive checking to determine location of trouble in wiring system (except ignition).

4147. WOODWORKING MACHINES (1946) Sound; 17 min. * — A II 7c NSC

Causes of saw accidents. Kickbacks: how to prevent. How to select a saw for a job; how to handle the saw. Hazards of radial, jump, double cut-off, portable electric saws. Push blocks, jointer guards; shapers; stickers; planers. Importance of good housekeeping and goggles.

4148. WOOL (1949) (Clothing and Shelter Series) 75 frames. — A III 2 EBF

Complete story of wool, from sheep's back through factory-knitting into sweaters.

4149. WORDS OF WISDOM (1949) (Great Americans Series) 48 frames. — A IX 1 CAS

Excerpts from writings of Thomas Jefferson; his precepts.

4150. WORK (1943) (Air Age Physics--Mechanics) 49 frames. — C VIII JamH

Physical definition of work. Work done against gravity; against friction. Units of work.

4151. WORK AND PLAY WITH JANET (No. 4) (1951) 165 frames; color. — A IV 2 CurrF

Visual and vocabulary material, aspects of life in American home and community, in six strips, as follows: (35) Janet's Birthday Cart; (36) Janet's Ducks and Geese; (37) Janet Visits a Dairy Farm; (38) Janet Helps Mother; (39) Fun on a Picnic; (40) Making Gingerbread Boys. For children.

4152. WORK SHEET, THE (1949) (Accounting Series) 40 frames. — A VI 3 McG-H

Purposes of work sheet; step-by-step procedure in constructing and using work sheet with debit and credit columns for (1) trial balance, (2) adjustments, (3) adjusted trial balance, (4) profit and loss items, and (5) balance sheet items. How work sheet can indicate net profit or loss for period; how it serves as basis for preparation of statement of profit and loss, formal balance sheet, statement of proprietorship, and end of year adjusting and closing entries.

4153. WORKING TOGETHER (1946) (Child Cooperation and Self-Discipline Series) 23 frames. — A VI 4 S-M

Three children decide to build playhouse. They quarrel over who shall own house. Discovering that no one of them can do job alone, they agree to work together. Advantages of cooperation.

4154. WORLD OF LAW AND ORDER, A (1948) (United Nations Series) 50 frames. — B I FPI

Use of personal force abandoned by civilized individuals in favor of local systems of law and order. UN charter. National sovereignty; international authority. Problems in UN security council. Need to build up UN peace machinery. Individual's responsibility in respect to peace.

4155. WOUNDS (1942) (First Aid Series) 97 frames. — A II 5 JamH

Part I: How to stop bleeding and help prevent infection.
Part II: Abrasions, clean cut wounds, jagged or torn wounds, deep puncture wounds, animal bites, snake bites.

4156. WOUNDS (1944) (First Aid Series) 35 frames. — A II 5 SVE

Different types of wounds; how each should be treated.

4157. WOVEN WITH SAFETY (1944) A II 7c NSC
Sound; 15 min.*
Major causes of accidents in textile mills: improper material handling, machinery hazards, compressed air, knives, scissors. Importance of first aid.

X

4158. X-RAYS (1941) C VIII GE
52 frames.**
Discovery of x-ray; its uses in medicine, industry, etc.

Y

4159. YOU AND YOUR CLOTHES (1946) A III 2 YAF
(Good Health Series)
42 frames.
Appropriate type of clothing to be worn in different kinds of weather: hot, cold, rainy weather, etc. Care child should take of clothing.

4160. YOU AND YOUR FOOD (1946) A III 3 YAF
(Good Health Series)
44 frames.
In order to grow healthy and strong children should eat proper foods; foods give energy, help growth, promote good health. Main food groups; what each does for human bodies.

4161. YOU AND YOUR TRACTOR (1946) A II 7c NSC
Sound; 15 min.*
Safe operation of industrial power trucks; ram-type, fork, carrier, tow, dump, crane, flat top, wiggle tail, and scoop. Proper loading and maintenance.

4162. YOU WANT TO LOOK RIGHT (1951) A VI 1 McG-H
(Business Etiquette, Set I)
Clothing becoming and suitable to occasion; tips on grooming and make-up with emphasis on naturalness and conservatism.

4163. YOUR BODY (No. 52) (1951) C II CurrF
200 frames; color.
Eight strips on how human bodies function and grow; how they need cooperation to maintain good health, as follows: (410) How Your Body Grows; (411) How You Breathe; (412) Your Blood System; (413) Your Bones; (414) Your Digestion; (415) Your Body's Message System; (416) Your Muscles; (417) Your Skin.

4164. YOUR BONES AND MUSCLES (1950) C II JamH
(Health Adventures, Part II (The Body))
71 frames; color.
Function of human skeleton; function of muscles. Good posture. How bones and muscles may be helped in their work.

4165. YOUR EDUCATIONAL PHILOSOPHY--DOES IT MATTER? (1952) A VI 3 Wayne
40 frames.
Two different philosophies in action; why every teacher needs a sound philosophy as frame of reference for work with children.

4166. YOUR EYES AT WORK (1950) A II 2 JamH
(Health Adventures, Part I (The Head))
67 frames; color.
How human eyes are protected; parts of the eye and how they work; how eyes may be helped to do their work.

4167. YOUR FOOD AND DIGESTION (1950) A III 3 JamH
(Health Adventures, Part II (The Body))
69 frames; color.
How foods help the human body; how body uses food; how digestive system may be aided in its work.

4168. YOUR FRIEND, THE PUBLIC HEALTH NURSE (1946) A II 11 METL
78 frames.**
Episodes in work of public health nurse; kinds of people served; problems met; how family and community health benefit by nurse's work.

4169. YOUR FUTURE IS IN SIGHT (1946) A II 7c ZurAm
100 frames; sound.**
The value of eyesight. Importance of good lighting. Measures advisable in care and protection of eyes.

4170. YOUR HEALTH (No. 67) (1951) A II 2 CurrF
200 frames; color.
Eight strips on habits which contribute to the maintenance of good health, as follows: (523) Cooperating with Others; (524) Avoiding Germs; (525) Good Health Ahead; (526) Cleanliness; (527) Posture; (528) Care of Teeth; (529) Care of Nose and Throat; (530) Care of Eyes and Ears.

4171. YOUR HEART AND LUNGS (1950) C II JamH
(Health Adventures, Part II (The Body))
74 frames; color.
Human lungs and heart at work; blood explained. How to take care of heart and lungs.

4172. YOUR JOB AND THE N.P. PATIENT (1947) A II 4d VETS
56, 37, 45 frames.**
How to deal with neuropsychiatric patients.
Part I. The attendant's job and the psychiatric patient.
Part II. How patient may affect attendant.
Part III. How attendant helps patient.

4173. YOUR NEW JOB (1951) A VI 1
(Business Etiquette, Set I) McG-H
43 frames.
Recent high school graduate goes through initial phases of new job; equipment she will use; techniques she must learn; general practices of employing company. Telephone procedure, smoking, importance of punctuality. How to handle confidential information.

4174. YOUR NOSE AND THROAT A II 2
(1950) JamH
(Health Adventures, Part I
(The Head))
69 frames; color.
How human nose functions in breathing; in smelling and tasting. Function of throat. How to protect oneself from common colds.

4175. YOUR SKIN AND ITS CARE A II 2
(1950) JamH
(Health Adventures, Part II
(The Body))
68 frames; color.
The human skin explained; its function. How skin, nails and hair should be cared for.

4176. YOUR STAKE IN COLLECTIVE A VII
BARGAINING (1947) PAC
60 frames.
Interplay of labor, management and public in collective bargaining.

4177. YOUR TEETH AND THEIR A II 2
CARE (1950) JamH
(Health Adventures, Part I
(The Head))
63 frames; color.
What teeth do; how formed; how teeth should be cared for.

4178. YOUR TEETH AND YOUR A II 2
HEALTH (1947) SVE
(Dental Health Series)
60 frames.
Individual's responsibility for care of teeth; habits to be followed in effective care of them. Importance of general health in relation to teeth. What is expected of dentist.

4179. YOURS TO COMMAND (1950) A VII
Sound: 26 min.; color.** CEMA
Story of conveyors; part they have played in industrial history; types available; jobs they do.

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4180. ZERO, A PLACE HOLDER C VII 1
(1947) POP
(Primary Arithmetic Series)
44 frames.
Use of zero explained for young children; illustrated with manipulative materials.

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Chinch Bugs and How They Are Controlled
Diseases of Cereals
Diseases of Fruits
Diseases of Vegetables
Grasshoppers and Their Control
Hessian Fly and Its Control, The
Horse Bots and How to Fight Them
Housefly and Its Control, The
Insect Pests of Garden Vegetables and Their Control
Insect Pests of Vegetables
Insects, Their Growth and Structure
Larger Barley Profits through Scab and Blight Control
Measuring Home Management
Nature of Plant Diseases, The
Treat Seed Grain
Types of Damaged Kernels and Other Conditions

D I 5
Farm Forestry Extension in the United States
Forestry and Human Welfare
Prevent Farm Fires
Propagation of Trees and Shrubs by Vegetative Means
Southern Pines Pay

D II
Changing World, The

E VIII
Elements of Art
Giotto's Life of Christ
Michelangelo: The Sistine Chapel
Middle Ages, The

E IX
Advanced Projection Control
Composition in Printing
Contact Printing
Developing Roll Film
Developing Sheet Film and Film Packs
Print Contrast Control
Print Presentation
Projection Printing
Quality Control in Negatives
Spot Printing and Dodging
Spotting of Prints

E X
Creating with Clay

SOURCES

AAA. American Automobile Association, Pennsylvania Avenue at 17th Street, Washington 6, D. C.

The American Automobile Association uses films in its campaign to educate the public concerning safety rules to be observed on the highway (by automobilists and by pedestrians, old and young). All inquiries concerning the Association's films and other materials should be addressed as above.

AACP. American Association of Colleges of Pharmacy, University of Iowa, Iowa.

The American Association of Colleges of Pharmacy Committee on Audio Visual Aids sponsored the film "The Manual Preparation of Tablet Triturates" listed in this publication for the instruction of students in pharmacy. In the United States prints may be rented or purchased; for use abroad they must be purchased. All inquiries should be addressed to Sturgis-Grant Productions, Inc., 314 E. 46th Street, New York 17, New York.

AAOO. American Academy of Ophthalmology and Otolaryngology, 100 First Avenue Building, Rochester, Minnesota.

The American Academy of Ophthalmology and Otolaryngology produced the film entitled Embryology of the Eye as a teaching medium for medical students, ophthalmology students and residents, nurses and interns; and also as a review film for ophthalmologists. All inquiries concerning purchase of it should be addressed as above. Inquiries concerning loan should be addressed to the American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

AAppleS. Appalachian Apple Service, Martinsburg, West Virginia.

The Appalachian Apple Service produced the film entitled Apples to encourage production of the fruit, through the use of improved methods, materials and equipment. Requests for loan of prints should be addressed to the Virginia Department of Conservation, Division of Publicity and Advertising, Richmond 19, Virginia. Purchase orders for prints wanted abroad should be similarly directed.

ACAD. Academy Films, P. O. Box 3088, Hollywood, California.

Academy Films produces motion pictures especially for classroom use. Inquiries and purchase orders should be addressed as above except from Canada. In Canada correspondence should be addressed to A. & F. Educational Film Corporation, 1434 St. Catherine Street, West, Montreal, P. Q.

ACC-Calco. American Cyanamid Company, 30 Rockefeller Plaza, New York 20, New York.

The film "Portrait of an Industry" listed in this publication shows how the dye industry has developed in the United States. Prints are loaned free, for appropriate display, within the United States. Requests for them and similar requests from abroad, should be addressed to the Calco Chemical Division of the Company, at Bound Brook, New Jersey.

ACC-LEDER. American Cyanamid Company, Lederle Laboratories Division, 30 Rockefeller Plaza, New York 20, New York.

The Lederle Division of the American Cyanamid Company uses films to disseminate results of its research into the effects of drugs and so to inform the public in their use. The Company's films are not for sale. They are obtainable abroad from its branch offices or representatives. All inquiries originating in the continental United States should be addressed as above.

ACC-MinD. American Cyanamid Company, 30 Rockefeller Plaza, New York 20, New York.

To present the technical information it contains to engineering societies, mining schools and colleges and others to whom the mining industry is of economic importance, the Mineral Dressing Division of the American Cyanamid Company distributes the film "The Story of an Ore Sample" listed in this publication. Prints are available on free loan for display in the United States. Prints are available for showing also in Western Europe, Africa, Australia, and South America. Requests for them should be addressed as above, attention Mineral Dressing Division.

ACE. American Council on Education, 1785 Massachusetts Avenue, Washington 6, D. C.

American Council on Education has produced filmstrips on various aspects of education, described in this catalogue, which are of interest to educators and school administrators. Inquiries from abroad regarding the filmstrips may be addressed to the nearest United States diplomatic or consular office, attention U. S. I. S. Domestic inquiries should be directed to the American Council on Education, address as above.

ACS. American Cancer Society, Inc., 47 Beaver Street, New York 4, New York.

The American Cancer Society, a nonprofit organization supported by voluntary contributions received from residents in the

United States, Alaska, and Puerto Rico, exists to disseminate information on cancer and seeks especially to inform the public concerning symptoms of the disease and its successful treatment.

Although the Society limits its usual activities to the United States, Alaska, and Puerto Rico, requests from abroad for its materials may be met by special arrangements. Such inquiries should be addressed as above, attention Director of Public Education or to the Medical and Scientific Director. Domestic inquiries should be addressed to the nearest local division of the Society.

In addition to public education films, the Society also produced medical films jointly sponsored by the Society and the National Cancer Institute of the U. S. Public Health Service. These are intended for display before professional audiences only, as indicated in their entries in this catalogue. Prints of this medical diagnosis series of cancer films can be obtained abroad from the U. S. Public Health Service on application to the nearest diplomatic or consular office, or, as above indicated, from the American Cancer Society by special arrangement. Prints may be purchased from the Society, address as above.

ADA. American Dental Association, 222 East Superior Street, Chicago, Illinois.

The American Dental Association has no policy according to which it may give a seal of official approval to a film, but it does review productions on dental subjects and those found acceptable are recommended for use at home and abroad. The Association distributes some recommended productions. Inquiries should be addressed as above.

ADL. Anti-Defamation League of B'nai B'rith, 212 Fifth Avenue, New York 10, New York.

The Anti-Defamation League uses films and filmstrips to combat inter-group prejudice and extend democracy. Its materials are obtainable on purchase only. Orders should be addressed as above.

AETNA. Aetna Casualty & Surety Company, Public Education Department, 151 Farmington Avenue, Hartford 15, Connecticut.

The Aetna Casualty & Surety Company produces films intended to help reduce accidents and to minimize the effects of those which occur. All inquiries should be addressed as above.

AF. A. F. Films, Inc. (Les Actualities Francaises), 1600 Broadway, New York 19, New York.

Some of the films handled by A. F. Films, Inc., were made in French, in France, but translated, adapted and printed in New York, from where the English versions listed in this catalogue are distributed. All inquiries should be addressed as above.

AgMC&BW. Amalgamated Meat Cutters & Butcher Workmen of North America, 210 North Wells Street, Chicago 6, Illinois.

The film "The Pursuit of Happiness" is of interest to members of the meat industry, and those interested in organization and operation of a union. For use in the United States, prints may be rented from Workers Education Bureau, American Federation of Labor, 724 Ninth Street, Washington 1, D. C. For use abroad, they may be purchased. Inquiries from abroad should be directed to Amalgamated, address as above.

AI. The Athletic Institute, 209 South State Street, Chicago 4, Illinois.

The Athletic Institute is a non-profit organization devoted to the advancement of athletics and recreation.

Inquiries from abroad concerning films should be addressed to the Institute as above except from Canada; these should be directed to the National Film Society, 172 Wellington Street, Ottawa, Ontario, Canada. In the United States the Institute's films may be purchased from the Institute or borrowed through regional libraries of Association Films. See card on Association Films.

The Institute has also produced sports instruction filmstrips which are part of its audio-visual instructional kits. The kits consist of the filmstrips, instructors' guides and student pocket booklets. Orders for the filmstrips should be addressed to the Society for Visual Education, 1345 West Diversey Parkway, Chicago 14, Illinois.

AJC. The American Jewish Committee, 386 Fourth Avenue, New York 17, New York.

This Committee works to combat prejudice. The motion picture listed in this catalogue was made to advance intergroup understanding and amity. The film may be purchased or rented (in the United States). All inquirities should be addressed to Association Films, 35 West 45th Street, New York 19, New York, or, if more convenient, to Association Film offices in Chicago, San Francisco or Dallas.

AlaP. Alabama Polytechnic Institute, Cooperative Extension Work in Agriculture and Home Economics, Auburn, Alabama.

Working in cooperation with the United States Department of Agriculture and the Southern Educational Film Production Service, Inc., the Alabama Polytechnic Institute produces and distributes motion pictures intended to disseminate information on scientific methods in agriculture.

Its films are obtainable on free loan in the State of Alabama. They may be purchased for use abroad. Address all inquiries as above.

ALCOA. Aluminum Company of America, 818 Gulf Building, Pittsburgh 19, Pennsylvania.

The Aluminum Company of America produces and distributes motion pictures to acquaint the public with the work of the Com-

pany and with the varied uses to which its products are put. The films may be borrowed free of charge within the United States. Prints may be purchased for display both here and abroad. All inquiries should be addressed as above, attention Motion Picture Section.

AlleLud. Allegheny Ludlum Steel Corporation, 2020 Oliver Building, Pittsburgh 22, Pennsylvania.

The Allegheny Ludlum Steel Corporation makes motion pictures and maintains a library for their distribution as a public service to schools, business and industrial firms. The Corporation's films have special interest for designers, architects, metallurgists, engineers, buyers, manufacturers, classes in technology or vocational training. These productions are available on free loan within the United States. For use abroad prints must be purchased. All inquiries should be addressed as above, attention Advertising Department.

AllisC. Allis-Chalmers Manufacturing Company, Tractor Division, Box 512, Milwaukee 1, Wisconsin.

The Allis-Chalmers Manufacturing Company makes and distributes films to show what mechanization and other improved methods, particularly in farm work, have contributed to productivity in the United States and so to improvement in general living standards. In the United States prints of the Company's productions may be borrowed free of charge. Inquiries should be addressed to the nearest Allis-Chalmers Branch House. For use abroad, prints may be purchased or borrowed from nearest distributor of Allis-Chalmers Tractor Division in area wherein inquirer resides or inquiries may be addressed as above, attention Exports Department.

AL-MO. Allen-Moore Productions, Inc., 213 West Seventh Street, Los Angeles 14, California.

Allen-Moore Productions make films and filmstrips for educational and informational pruposes. Teachers' guides are available for some of this corporation's productions. All inquiries should be addressed as above.

AmBUT. American Butter Institute, Inc., 110 North Franklin Street, Chicago 6, Illinois.

The American Butter Institute produces and and distributes films and filmstrips to promote the welfare of the butter industry by disseminating information concerning good dairy practices. These materials may be purchased from the Institute, address as above.

AmFEED. American Feed Manufacturers Association, 53 West Jackson Boulevard, Chicago 4, Illinois.

The American Feed Manufacturers Association produced the film entitled The Growth of a Nation to disseminate information concerning the development of the feed industry and the importance of the use of manufactured feed. The film is loaned free for display by educational and non-profit groups and service organizations within the United States. It is also for rent to the feed industry in this country and may be purchased for use abroad. All inquiries from abroad should be addressed as above. Inquiries originating in the United States should be addressed to Modern Talking Picture Service, 45 Rockefeller Plaza, New York, New York, or to Farm Film Foundation, 1731 Eye Street, N. W., Washington, D. C.

AmGasA. American Gas Association, 420 Lexington Avenue, New York 17, New York.

The American Gas Association produced the filmstrips listed in this publication to assist in training personnel engaged in the industry (particularly in selling gas for residential use). Basic text books, leader's guides etc., are available. The film Where Food is Finest is directed to volume kitchen operators. All inquiries should be addressed as above.

AmGCC. The American Guernsey Cattle Club, Peterborough, New Hampshire.

The American Guernsey Cattle Club distributes a film and a filmstrip to disseminate information for the benefit of Guernsey breeders. A printed manual accompanies the strip, which may be rented in the United States as well as purchased here and abroad. The film is loaned free in the United States. It is available abroad on purchase only. All inquiries should be addressed as above.

AmHotD. American Hot Dip Galvanizers Association, Inc., 2311 First National Bank Building, Pittsburgh 22, Pennsylvania.

The American Hot Dip Galvanizers Association produced and distributes the film entitled Must It Rust? to explain the hot-dip gavanizing process and the protection it affords against oxidation. Prints of the film may be borrowed free in the United States or purchased at cost for use here or abroad. All inquiries should be addressed as above.

AmNCat. American National Cattlemen's Association, 515 Cooper Building, Denver Colorado.

The American National Cattlemen's Association produced and distributes the film entitled All Flesh is Grass to enlighten the American public as to methods, problems and accomplishments of the American beef-cattle industry. The film is loaned free in the United States. Prints may be purchased for use abroad. All inquiries should be addressed as above, attention Public Relations Office.

AmO. American Optical Company, Southbridge, Massachusetts.

The American Optical Company produced the film "Right on the Nose" listed in this

catalogue to instruct the public in practical methods of adjusting industrial safety goggles fitted with non-corrective lenses. All inquiries concerning it (and related printed matter which is available) should be addressed as above.

AmPetrol. American Petroleum Institute, 50 West 50th Street, New York 20, New York.

The American Petroleum Institute produces films to remind the public of service to the community rendered by oil and oil producers and distributors. These films are loaned free within the United States. They are obtainable on purchase for use abroad. The Institute also distributes a catalogue of motion pictures of general interest about petroleum, indicating from what sources they are available (loan, rent or sale, sometimes within restricted areas). All inquiries concerning the Institute's films listed in this edition, and concerning its catalogue, should be addressed as above, attention Oil Industry Information Committee.

AmSH. American Social Hygiene Association, 1790 Broadway, New York 19, New York.

The American Social Hygiene Association is a non-profit, voluntary health and welfare agency which uses films and filmstrips to disseminate information concerning the prevalence, spread, effects and cure of venereal disease, and to awaken public interest in ways and means to combat syphilis and gonorrhea. All inquiries should be addressed as above.

AmStockYA. American Stockyards Association, 1330 Terminal Tower, Cleveland 13, Ohio.

As a public service the American Stockyards Association produces and distributes films to inform all interested concerning public livestock markets, how they operate, how they serve the livestock industry and the country. All inquiries should be addressed as above.

APFC. American Plant Food Council, Inc. 910 Seventeenth Street, N. W. Washington, D. C.

The American Plant Food Council, Inc., is a fertilizer trade association. The Counil uses motion pictures to encourage the adoption of scientifically sound land management programs.

Requests for free loan of pictures for use abroad are decided on merits of each such request in relation availability of prints.

APL. Alabama Public Library Service, Montgomery, Alabama.

Working through the Southern Educational Film Production Service, University of Georgia, Athens, Georgia, the Alabama Public Library Service cooperates with other similar agencies in the southern United States to produce films intended to assist in raising standards of life in that region.

The Library Service's film listed in this catalogue may be borrowed from the Library Service for use in Alabama. It may be purchased of the American Library Association, 50 East Huron Street, Chicago, Illinois, or rented (in U.S.A.) from the Ideal Pictures Corporation, 26-30 East Eight Street, Chicago 5, Illinois.

ARC. The American National Red Cross, Washington, D.C.

The American National Red Cross produces and distributes motion pictures to inform the public of services rendered by this organization. Among these are instruction in accident prevention and emergency first aid. All inquiries for prints of these pictures wanted outside the United States should be addressed as above. For use within the United States, prints may be purchased of United World Films, 1445 Park Avenue, New York 29, New York.

ARF. Arthritis and Rheumatism Foundation, 23 West 45th Street, New York 19, New York.

The Arthritis and Rheumatism Foundation made the motion picture entitled "Problems of Rheumatoid Arthritis" listed in this publication to help educate the lay and medical public in respect to those problems and present methods of therapy. In the United States prints are available on loan for display to appropriately interested groups on application to local chapters of the Foundation, or to the national office (as above). Responsible organizations abroad may inquire of that office concerning the possibility of borrowing prints.

ArkLGas. Arkansas-Louisiana Gas Company, P.O. Box 1734, Shreveport, Louisiana.

The Arkansas-Louisiana Gas Company produced the film The Fires Must Never Go Out to explain the origin and encourage the use of natural gas. Prints may be borrowed for use in the United States. They may also be purchased for display here and abroad. All inquiries should be addressed as above.

ASM. American Society for Metals, 7301 Euclid Avenue, Cleveland 3, Ohio

The American Society for Metals, Subcommittee on Visual Education in cooperation with the Ohio State University Research Foundation is producing a series of films on metallic subjects of which Metal Crystals listed in this edition is the first. The Subcommittee also produced Iron-Carbon Alloys, similarly here listed. In the United States prints of these productions are loaned to interested groups. For use abroad, prints are available on purchase. All inquiries should be addressed as above.

ASSOC. Association Films, Inc., 347 Madison Avenue, New York 17, New York.

Association Films produces and distributes motion pictures intended to help youth in physical education, especially through sports, in health education, social behabior, emotional adjustment, intergroup understanding, etc. Its productions listed in this catalogue are obtainable abroad on purchase. All inquiries should be addressed as above. In the United States they may also be rented from Association Films offices in Chicago, San Francisco and Dallas as well as New York.

AUDIO. Audio Productions, Inc., 630 Ninth Avenue, New York 36, New York.

Films produced by Audio Productions, Inc., listed in this publication are for use in safety education of industrial workers, employees of railroad companies, etc. All inquiries concerning them should be directed to Audio Productions at the above address.

AUSTIN. Austin Productions, P.O. Box 713, Lima, Ohio

Austin Productions make and sell motion pictures for sales promotion, advertising and training purposes. The film Hose Evolutions and Hose Line Equipment listed in this publication was produced in cooperation with the Ohio Fire Chiefs' Association. All inquiries should be addressed as above.

AUS-WES. Austin-Western Company, Aurora, Illinois.

The Austin-Western Company, subsidiary of Baldwin-Lima-Hamilton Corporation, makes construction machinery, and to promote sales the Company produces and distributes motion pictures to show the advantages of proper use of such machinery. Prints of these films may be borrowed free within the United States. They may be purchased for use abroad. All inquiries should be addressed as above, attention Sales Promotion-Advertising.

AutoMA. Automobile Manufacturers Association, New Center Building, Detroit 2, Michigan.

The Automobile Manufacturers Association produced the film "A Professional Portrait" listed in this publication to acquaint the public with the care used in the selection and training of men to drive commercial vehicles (buses, trucks, etc.) on the highways of the United States. To obtain free loan of the film address National Highway Users Conference. Inc., National Press Building, Washington 4, D.C. Prints are also for sale. All purchase orders should be directed to Wilding Picture Productions, 1345 Argyle Street, Chicago, Illinois.

AVIS. Avis Films, Inc., 932 North La Brea Avenue, Hollywood 38, California.

Avis Films, Inc., are producers of educational and instructional motion pictures and slide-films released by direct sale only. All inquiries and orders should be addressed as above, except those from Canada which should be directed to A & F. Educational Film Corporation, 1434 St. Catherine Street, W., Montreal 25, P.Q.

B&LO. Bausch & Lomb Optical Company, Film Distribution Service, Rochester 2, New York.

As an educational service, Bausch & Lomb Optical Company has produced motion picture films designed to further knowledge of the science of optics. For showings in the United States, these films are available on a loan basis upon request addressed as above or to the nearest Bausch & Lomb branch office. Inquiries from outside the United States should be directed to Mr. Field Ellis, Bausch & Lomb Optical Company, Africa House, Kingsway, London W.C. 2, England.

Bailey. Bailey Films, Inc., 6509 De Longpre Avenue, Hollywood 28, California.

Bailey Films, Inc., produces and distributes films of an educational and documentary nature for schools, public libraries, and other organizations. These deal with a wide variety of subjects, including physical education, social studies, science, foreign languages, English, literature and mathematics. Its products listed in this catalogue are obtainable abroad on purchase. In the United States they may also be rented. Address all inquiries as above.

BarD. The Barrett Division, Allied Chemical and Dye Corporation, 40 Rector Street, New York 6, New York.

The Barrett Division of the Allied Chemical and Dye Corporation made the film "Nitrogen Abundance" listed in this publication as a public service to agriculture. All inquiries should be addressed as above.

BARR. Arthur Barr Productions, 1265 Bresee Avenue, Pasadena 7, California.

Arthur Barr Productions makes films for educational use, especially in the fields of social living, industry and natural history. All inquiries should be addressed as above.

BecD. Becton, Dickinson & Company, Rutherford, New Jersey.

Becton, Dickinson & Company make medical and surgical instruments and as a feature of their work in public relations produced the film listed in this catalogue to assist in the training of the athletic directors and other persons responsible for the prevention and first treatment of athletic types of injuries. The film is available on free loan in the United States. Arrangements concerning prints for display abroad may be made according to circumstances in each instance. All inquiries should be addressed as above.

BecI. Bechtel International Corporation, 141 Battery Street, San Francisco 11, California.

Bechtel International Corporation produces motion pictures from time to time for display before engineers, students of engineering and other persons interested in engineering and construction projects, including the laying of large gas and oil pipelines. Prints may be borrowed by special arrangement. All inquiries should be addressed as above.

BECK. Dr. Lester F. Beck, University of Oregon, Eugene, Oregon.

Dr. Beck made the film "Human Beginnings," listed in this edition in cooperation with the public schools of Eugene, Oregon, the Walt Whitman School, New York and the Presbyterian Hospital, New York. It is intended for use in elementary school classes (kindergarden and grades 1 and 2) to promote the emotional well-being of young children; and in college courses and adult education groups interested in child psychology, etc., etc. In the United States prints may be rented, or purchased by educational film libraries. They may be purchased for use abroad. All inquiries should be addressed to Association Films, 347 Madison Avenue, New York 17, New York.

BELL. The Bell Telephone Laboratories, Inc., 463 West Street, New York 14, New York.

The film "High Speed Motion Pictures of the Human Vocal Cords" listed in this catalogue is an outcome of many years fundamental research in speech and hearing carried on by Bell Telephone Laboratories to enable the corporation to determine design and improvement in communication apparatus, including not only that used in the telephone system, but also that used in radio broadcasting, sound pictures, phonograph recording and allied fields.

Within the United States the film is available on loan to accredited universities, colleges and technical schools. It is available abroad on purchase only. All inquiries should be addressed as above, attention Mr. A. R. Thompson, Publication Production Manager.

BEMIS. Bemis Bro. Bag Company, 408 Pine Street, St. Louis 2, Missouri.

The Bemis Bro. Bag Company produced the film "The King's Other Life" listed in this publication to show improved methods of bag manufacture and to suggest to housewives various ultimate uses for the finished product. Prints of the film are obtainable on free loan within the United States; for use abroad they must be purchased. All inquiries should be addressed as above.

BenAC. Bendix Aviation Corporation, Scintilla Magneto Division, Sidney, New York.

The Scintilla Magneto Division of the Bendix Aviation Corporation produced the film "Theory of Operation of the Four Pole Magneto" for display before students of physics, electrical engineering, and other groups interested in the general field within which it lies. All inquiries concerning it should be addressed as above. Inquiries from abroad concerning the corresponding filmstrips should be addressed to the Corporation c/o Bendix International Division 72 Fifth Avenue, New York 11, New York.

BETH. Bethlehem Steel Company, Bethlehem, Pennsylvania.

For the use of manufacturing and industrial companies, jobbers, dealers, technical societies, trade associations, colleges, universities, business groups and service clubs the Bethelehem Steel Company makes films and maintains a library of motion pictures on the making and processing of steel, the use of steel in steel construction and shipbuilding industries. These pictures are available only on free loan. Domestic inquiries originating west of the Rocky Mountains should be addressed to the Bethlehem Pacific Coast Steel Corporation, Publications Department, 20th and Illinois Streets, San Francisco 19, California. Domestic inquiries originating east of the Rocky Mountains and inquiries from abroad should be addressed to the Company at Bethlehem, Pennsylvania, attention Publications Department, excepting those originating in Canada. These should go to Bethlehem Steel Export Corporation, 804 Dominion Square Building, Montreal, Quebec.

BF. Brandon Films, Inc., 200 West 57th Street, New York 19, New York.

Brandon Films, Incorporated specializes in the distribution of educational films.

All inquiries concerning the productions the corporation handles should be addressed as above.

BLBS. Better Light Better Sight Bureau, 420 Lexington Avenue, New York 17, New York.

This Bureau produces films and filmstrips as part of a program under the sponsorship of the electric and allied industries of the United States to foster a better understanding of the relationship between light and sight. Its productions are for sale. The film listed in this catalogue is purchased usually by electric light and power companies for display within their respective service areas, to civic and fraternal groups and the public generally. All inquiries should be addressed as above.

BLUEC. Blue Cross Commission, 425 North Michigan Avenue, Chicago 11, Illinois.

The Blue Cross Commission of the American Hospital Association is a non-profit coordinating agency for the Association's approved hospital service plans (United States and Canada). The Commission produced the film

listed in this catalogue to explain these plans and show how any community may benefit by them. All inquiries concerning the picture should be addressed as above.

BR. Dr. Bret Ratner, 50 East Seventy-eighth Street, New York 21, New York.

The film "Allergy" listed in this catalogue was produced to disseminate information concerning the phenomena of protein hypersensitivity.

The film is loaned free to physicians, hospitals, medical societies, etc., in the United States and will be made available elsewhere when possible. All inquiries should be addressed to Mead Johnson & Company, Evansville 21, Indiana, attention Mr. Mead D. Johnson.

BRAY. The Bray Studios, Inc., 729 Seventh Avenue, New York, New York.

The Bray Studios produce films for use in schools, hospitals, boards of health, nursing homes, educational institutions of all kinds, industries, men and women's clubs, governmental agencies, etc. All inquiries should be addressed as above.

BSA. Boy Scouts of America, 2 Park Avenue, New York, New York.

This youth organization produces and uses films, filmstrips and slides to explain its purposes to the public, to train leaders and to instruct members in the skills, procedures and ideals of Scouting. A Visual Aids Guide may be obtained on application to the national headquarters at the address given above. All orders for films should be similarly directed.

Some of the films produced by the Boy Scouts of America seem to have been made by amateurs but they do achieve their purpose. With little exception those on handicrafts and skills are clear, definite and therefore truly helpful.

BURKE. Billy Burke Productions, 7416 Beverly Boulevard, Hollywood 36, California.

Billy Burke Productions make films on medical and surgical subjects for teaching on higher levels. The films are in color, some silent with titles, some with sound, for use especially by the medical profession, and medical schools. Catalogue available on request. Address inquiries as above.

CABOT. Godfrey L. Cabot, Inc., 77 Franklin Street, Boston 10, Massachusetts.

Godfrey L. Cabot, Inc., made the film entitled "A Study in Black" listed in this publication to explain the nature, manufacture and uses of carbon black. Prints (English, French, Italian, Portuguese, Spanish) are available on free loan. Inquiries should be addressed to the agent of the Corporation within the country where the inquirer is situated or to the Corporation in Boston, as above.

CalTO. California Texas Oil Company, Limited, 551 Fifth Avenue, New York 17, New York.

The California Texas Oil Company, Limited, makes films of interest to farmers and agricultural groups, service station operators, engineers, and general audiences. For use abroad, in Eastern Hemisphere only, prints are obtainable by purchase. All inquiries should be addressed as above.

Carbo. The Carborundum Company, Niagara Falls, New York.

The Carborundum Company produces films of interest to industrial training schools, machine shop and factory management and personnel, scientists, and general audiences. The film "Romance of Industry" is available in two versions, the shorter of which is entitled "Manufactured Abrasives". All inquiries should be addressed as above.

CAS. The Creative Art Studio, Inc., 1200 Eye Street, Washington 5, D.C.

The Creative Art Studio produces and distributes educational filmstrips and slides for classroom use. This material is for sale and all inquiries should be addressed as above.

Case. J.I. Case Company, Racine, Wisconsin.

J.I. Case Company manufactures farm equipment and, to promote better agriculture, distributes films and filmstrips, corresponding manuals, and supplementary wall charts. These show how to use modern farm equipment to greatest advantage, how the farmer may improve and maintain his land, and so get larger crops from it at reduced expense. In producing this material the Company works with the United States Department of Agriculture, state colleges and Canadian agricultural technicians. For appropriate display in the United States, prints of these productions are available free of charge. For use abroad prints may be bought at cost. If desired, silent prints may be purchased with English narration in printed form (to facilitate translations). All inquiries should be addressed as above.

CateT. Caterpillar Tractor Co., Peoria 8, Illinois.

The Caterpillar Tractor Co. produces films of interest to farm, industrial, and civic groups, to educational institutions, including technical schools, and to general audiences. Many of the films, but not all, show the operation of Caterpillar equipment. Prints are obtainable abroad by purchase. They are available on loan in the United States to approved groups. All inquiries should be addressed as above.

CB. Federal Security Agency, Social Security Administration, Children's Bureau, Washington 25, D.C.

The Children's Bureau cooperated with the Department of Health of the State of Virginia to produce films listed in this catalogue. They are intended to inform the public of work done to assure a place in the useful citizenship of the community to children born prematurely, afflicted with rheumatic fever or crippled. Inquiries from abroad concerning these films should be addressed to Film Program Service, 1173 Avenue of the Americas, New York 19, New York. Domestic inquiries may be addressed to the nearest state or territorial health department.

CDC. Federal Security Agency, United States Public Health Service, Communicable Disease Center, 605 Volunteer Building, Atlanta 3, Georgia.

The Communicable Disease Center, headquarters in Atlanta, Georgia, is a "task force" of the United States Public Health Service. Its mission is by experiment to develop operational procedures, materials and equipment and to prove and demonstrate their effectiveness in prevention and control of communicable diseases. In this work the Center produces and uses films and filmstrips. For films marked with single check (√) immediately or closely related strips are available.

Distribution of these films and strips in foreign countries on three-month loan or outright purchase is governed by generous regulations intended to facilitate cooperation between the Center and foreign medical, health and other government agencies. Scripts in English for most of the Center's productions are available on request. If foreign language records are needed, assistance to obtain them may be provided. Authorization to reproduce the Center's films and filmstrips can be extended to health and medical agencies abroad. Inquiries should be addressed to the Officer in Charge, Communicable Disease Center, 50 Seventh Street, Atlanta, Georgia.

Prints of Communicable Disease Center productions listed in this catalogue marked UWF may be purchased of United World Films, Inc. 1445 Park Avenue, New York 29, New York, and correspondence concerning purchase of them should be so addressed.

CEMA. Conveyor Equipment Manufacturers Association, No. 1 Thomas Circle, Washington 5, D.C.

The Conveyor Equipment Manufacturers Association made the filmstrips listed in this publication to show what the conveyor means to American industry and to stimulate the working out of additional methods of lowering production cost and increasing output. In the United States prints may be purchased or borrowed; for use abroad they may be purchased. All inquiries should be addressed as above.

CentR. The Central Railroad of New Jersey, Jersey Central Terminal Building, Jersey City 2, New Jersey.

The Central Railroad of New Jersey has released a film on its operation of that short line railroad, which is of interest to the general public. All inquiries should be addressed to the Railroad, attention Director of Publicity, 143 Liberty Street, New York 6, New York.

Champ. Champion Spark Plug Company, Toledo, Ohio.

The Champion Spark Plug Company produces films of interest to vocational training schools, mechanics, and to distributors and jobbers of the Company's products. Prints of these films are loaned free in the United States for display to appropriate groups. For use abroad prints may be purchased. All inquiries should be addressed as above.

CHU-WEX. Churchill-Wexler Film Productions, 801 North Seward Avenue, Los Angeles 38, California.

Churchill-Wexler produce and distribute films for educational and class room use. All inquiries should be addressed as above.

CIBA. Ciba Pharmaceutical Products, Inc., Summit, New Jersey.

Ciba Pharmaceutical Products, Inc., makes films for educational purposes in connection with its own promotional activities. All inquiries concerning its productions should be addressed as above, attention Advertising Manager.

CIEB. Chilean Iodine Educational Bureau, Inc., 120 Broadway, New York 5, New York.

The motion picture "Skin Antiseptics--Evaluation of Effectiveness of Some Widely Employed Antiseptics" listed in this catalogue, was prepared by the Chilean Iodine Educational Bureau for display before physicians, surgeons, dentists, veterinary surgeons, nurses, bacteriologists, students of those professions, and others in allied fields to show the importance of testing antiseptics by a variety of techniques to determine effective antibacterial action. The film may be obtained on loan in Canada as well as in the United States. All inquiries should be addressed as above.

CINBTC. Continental Illinois National Bank and Trust Company of Chicago, 231 South LaSalle Street, Chicago 90, Illinois.

The Continental Illinois National Bank and Trust Company of Chicago made the film and filmstrips listed in this publication as a public service, to show what the banking system does for industry and individuals, and to train bank members to do their work well. Prints may be borrowed through local banks in the United States

and abroad if the banks will transmit requests for the material to the Continental Illinois National Bank and Trust Company of Chicago at the address given above.

CIPRA. Cast Iron Pipe Research Association, 122 S. Michigan Avenue, Chicago 3, Illinois.

The Cast Iron Pipe Research Association produced the film listed in this catalogue to acquaint students and members of civic organizations with methods of purifying water and sewage. Domestic inquiries should be addressed as above. Purchase orders from abroad should be addressed to Audio Productions, Inc., 630 Ninth Street, New York 19, New York.

Cl-Ad. Clay-Adams Company, Incorporated, 141 East 25th Street, New York 10, New York.

Clay-Adams Company, Incorporated, produces medical films of interest to doctors, nurses, residents, internes, and medical students. The Company has developed and organized a collection of kodachrome slides in teaching sets, in the fields of medicine, nursing, and the allied sciences, useful particularly in educational programs concerned with rehabilitation of medical and nursing schools, and in college and university programs. All inquiries should be addressed as above.

CLARK. Clark Equipment Company Industrial Truck Division, Battle Creek, Michigan.

The Clark Equipment Company produces films of interest to industrial management, engineers, and others concerned with problems of materials handling. In addition to those films listed in this catalogue, the Company has also produced a number of others which demonstrate the equipment it makes for handling materials. Prints may be borrowed. They may also be purchased (on special arrangement). All inquiries relating to the films should be addressed as above, attention Export Division.

Clems. Clemson A. and M. College, Clemson, South Carolina.

The film "Making a Good Food Better" listed in this publication was produced under the supervision of specialists of the South Carolina Experiment Station and Clemson College Extension Service. It is of interest to agricultural agents, public health workers, farmers, nutritionists, home economists, educational institutions. All inquiries should be addressed as above, attention Nutrition Department.

CleTD. The Cleveland Twist Drill Company, 1242 East 49th Street, Cleveland 14, Ohio.

The Cleveland Twist Drill Company produces films of interest to operators and employees of industrial metalworking plants. All inquiries regarding purchase of prints should be addressed to Escar Motion Picture Service, 7315 Carnegie Avenue, Cleveland, Ohio.

ColPH. State of Colorado Department of Public Health, State Office Building, Denver 2, Colorado.

The Colorado State Department of Public Health produced the film entitled "Danny's Dental Date" to provide dental health instruction for elementary school children. All inquiries concerning it should be addressed as above, attention Public Health Education Section.

COLUM. Columbia University, New York, New York.

The film on "Poliomyelitis in Monkeys and Rodents" listed in this publication was produced by Columbia University, College of Physicians and Surgeons, for research and teaching purposes. All inquiries concerning it should be addressed to Columbia University, College of Physicians and Surgeons, 630 West 168th Street, New York 23, New York, attention Dr. Claus W. Jungeblut.

All inquiries concerning other Columbia University productions here listed should be addressed to the University's Communication Materials Center, 413 West 117th Street, New York 27, New York. The pictures are for rent in the first four postal zones of the United States. They are also for world-wide sale.

Additional information bearing on "Activity Group Therapy" should be requested of Mr. S.R. Slavsen, Jewish Board of Guardians, 228 East 119th Street, New York, New York, concerning two books, "An Introduction to Group Therapy" and "Analytical Group Psychotherapy."

COM-BS. United States Department of Commerce, National Bureau of Standards, Washington 25, D. C.

In cooperation with the American Dental Association's Council on Dental Research the National Bureau of Standards produced the dental films listed in this publication to disseminate to the profession, and students of dentistry, the results of research into dental materials, their preparation and use. In the United States prints may be rented for display to appropriate groups, or purchased. All such inquiries should be addressed to the Office of Scientific Publications, National Bureau of Standards, Washington 25, D.C. Inquiries originating outside the United States should be addressed to the nearest American diplomatic mission or consular office.

COM-PR. United States Department of Commerce, Bureau of Public Roads, Washington 25, D. C.

The Bureau of Public Roads produces motion pictures as a means of disseminating results of its research into problems of con-

struction and maintenance of highways. The film "Highway Soil Engineering" listed in this catalogue is addressed to technical audiences, engineers and engineering classes at college and graduate level. All inquiries concerning it should be addressed as above.

COM-WB. United States Department of Commerce, Weather Bureau, Washington 25, D.C.

The Weather Bureau uses motion pictures to inform the public concerning its research into conditions which determine weather, its forecasting procedures, its system for warning of dangerous conditions and its control and relief activities. All inquiries should be addressed as above.

CORONET. Coronet Instructional Films, Coronet Building, 65 E. South Water Street, Chicago 1, Illinois.

Coronet Instructional Films produces motion pictures designed for classroom teaching. A teacher's guide to class preparation accompanies each subject, with statement of the purpose of the film, evidence of the competence of the educational collaborator who helped make it, and suggestions how the picture may be used to greatest advantage. Coronet films may be rented in the United States (also in Hawaii) and in Canada. Elsewhere they are obtainable on purchase only. Inquiries and orders should be addressed as above.

CRADLE. The Cradle Society, 2049 Ridge Avenue, Evanston, Illinois.

The film "Nursing Technic" listed in this catalogue was made to visualize nursery technic used at The Cradle. The picture is obtainable on loan for display within the United States. Requests to borrow should be addressed as above. The film is available abroad on sale only. All purchase orders should be addressed to Reid H. Ray Film Industries, 2269 Ford Parkway, St. Paul, Minnesota.

CurrF. Curriculum Films, Incorporated, 10 East 40th Street, New York 16, New York.

Curriculum Films, Inc., produces and sells the filmstrips listed in this publication as visual aids to help teachers teach more in given time, and to assist pupils to understand, discuss and remember knowledge presented in them. Teachers' manuals included in price of strips. All inquiries should be addressed as above.

CUTT. Cutter Laboratories, Fourth and Parker Streets, Berkeley 10, California.

As a public service to doctors, nurses, interns, medical students, and other groups of persons legitimately interested in the subjects presented, Cutter Laboratories produce and distribute motion pictures on disease and techniques of treatment and prevention. Prints may be purchased, or borrowed. All inquiries should be addressed as above, attention Motion Picture Department.

DARTNELL. The Dartnell Corporation, 4660 Ravenswood Avenue, Chicago 40, Illinois.

The Dartnell Corporation is a business research organization which sells services, books, reports, motion pictures, filmstrips, forms, supplies, "campaigns" and publications, all addressed to making available late information on business trends and improved business practices (in the United States).

DAVEY. The Davey Tree Expert Company, Kent, Ohio.

The Davey Tree Expert Company has produced motion pictures and distributes them free in the eastern half of the United States for display in schools and other educational institutions and before other groups interested to learn the value of shade trees and how they should be cared for. For use abroad prints must be purchased. All inquiries should be addressed as above.

DCStL. Dairy Council of St. Louis, 4030 Chouteau Avenue, St. Louis, Missouri.

As part of its educational program the Dairy Council of St. Louis makes motion pictures for use in schools, clubs, etc., to disseminate information on the nutritional value of milk and the good effects of well balanced diet. Outside the St. Louis area these productions are obtainable by purchase. Within that area they may be borrowed. All inquiries should be addressed as above, attention Educational Director.

DeK. DeKalb Agricultural Association, Inc., DeKalb, Illinois.

The DeKalb Agricultural Association, commercial producers of DeKalb seed corn and chix, make and distribute films and filmstrips to explain the value of hybrid seed corn and of inbred and crossbred chicks, and, further, to illustrate how desirable qualities are obtained. Within the United States this material may be borrowed for display to appropriate groups (one week loan only). For use abroad the films and strips may be purchased. All inquiries should be addressed as above, attention Educational Division.

DenGep. Denoyer-Geppert Company, 5235 Ravenswood Avenue, Chicago 40, Illinois.

The Denoyer-Geppert Company produced and distributes the film "Anatomical Models" listed in this publication to demonstrate how the making of teaching models has been developed in the United States and to encourage teachers of biology, physiology, physical education, health and related subjects to use such dissectible models in the classroom. Prints are loaned in the United States for display to groups of teachers and students.

For use abroad prints are obtainable on purchase. All inquiries should be addressed as above.

DG. Davis & Geck, Inc., Surgical Film Library, 57 Willoughby Street, Brooklyn, New York.

Davis & Geck, Inc., manufacturers of surgical sutures and other specialties, produce and distribute films on surgical subjects as a service to the medical profession. The films are available on a loan basis, without charge, within the United States, for group showings to hospitals, medical schools and accredited medical and surgical groups. They are not intended for showing to the laity. Outside the United States, films may be requested through their agents or may be purchased on a lease basis. All inquiries should be addressed as above.

DICTAP. Dictaphone Corporation, 420 Lexington Avenue, New York 17, New York.

The Dictaphone Corporation makes motion pictures intended to aid business executives and their staffs by advertising modern business equipment. In the United States prints may be borrowed. For use abroad they may be purchased. All inquiries should be addressed to the Corporation as above.

DUPONT. E. I. duPont de Nemours & Company, Inc., Wilmington, Delaware.

E. I. duPont de Nemours & Company make and distribute pictures to acquaint students of chemistry and of business, buyers, sales people and the public with processes used in the manufacture of their products and with the properties and qualities of these products. The films stress the value and the nature of chemical research done by the Company. Prints of the pictures may be borrowed in the United States. For use abroad prints may be purchased. All inquiries should be addressed as above.

DyReg. The Dysentery Registry, The Bronx Hospital, 169th Street and Fulton Avenue, New York 16, New York.

The Dysentery Registry uses films in its Seven Point Program for the Control of Infectious Diarrheas. This program is a plan for international cooperation for detecting cases of infectious diarrhea at their source; for certification of passengers and crew of ships as to presence or absence of infectious diarrhea at points of embarkation and before disembarkation; compulsory universal reporting by physicians of all infectious diarrheas; adequate sanitary supervision of transportation systems, summer camps, food and food-handlers; education of the physician and layman in isolating every case of diarrhea until cultures for specific organism prove negative; appointment of an epidemiologist to the staff of every hospital; and the prophylactic use of type-specific vaccine and serum in bacillary dysentery.

All inquiries should be addressed as above, attention Dr. Joseph Felsen, Director of Laboratories and Research.

EATON. Eaton Laboratories, Inc., Norwich, New York.

The Eaton Laboratories made the film "Skin Grafting of Extensive Burns" listed in this publication as a public service to show a modern technique regularly used at the University of Kansas Medical Center. Within the United States prints may be borrowed free of charge for display to appropriate groups. For use abroad prints may be purchased. All inquiries should be addressed as above.

EBF. Encyclopaedia Britannica Films, Inc., 1150 Wilmette Avenue, Wilmette, Illinois.

Encyclopaedia Britannica Films, Inc., makes films and filmstrips for classroom instructional use. These materials are produced in collaboration with educators who are subject matter specialists. Teacher's and discussion leader's guides accompany films and strips, indicating grade levels and areas for which the materials are intended (in the U. S. A.) and suggesting how they may be followed-up in discussion, related activities and review.

EBF has recently produced a series of films entitled "Great Men and Women", a number of which are described in this catalogue; others, similar in physical description, terms of availability, and general subject matter, include "Abraham Lincoln", "Booker T. Washington", "Daniel Boone", "Daniel Webster", "George Washington", "James Fenimore Cooper", "John C. Fremont", "La Salle", "Lewis and Clark".

Domestic orders should be addressed as above.

EBF films are obtainable abroad on purchase only. The distribution of a few subjects is limited to Australia, New Zealand, Union of South Africa and the American republics. Orders from abroad should be addressed as above, attention Overseas Relations.

EdS. Educational Services, 1702 K Street, Washington 6, D. C.

Educational Services distribute teaching aids (filmstrips, recordings and related equipment). All inquiries should be addressed as above.

EL. Economics Laboratory, Inc., Guardian Building, St. Paul, Minnesota.

Economics Laboratory, Inc., uses motion pictures to disseminate results of its research into scientific procedures of benefit to management of private business and public institutions interested in sanitation especially in relation to modern dishwashing methods.

Its productions are obtainable abroad by

purchase only, except in Canada where, as in the U. S. A., they may be borrowed free or rented. All inquiries should be addressed as above.

ETHICON. Ethicon Suture Laboratories, Incorporated, New Brunswick, New Jersey.

The Ethicon Suture Laboratories made the films "Anomalies of the Bile Ducts--Blood Vessels and Strictures of the Common Duct" and "Injuries of the Peripheral Nerves" listed in this publication as an educational service to medical and hospital fields to familiarize them with both new and established surgical technics. Within the United States prints may be borrowed for display to appropriate groups. For use abroad prints may be purchased. All inquiries should be addressed to the Laboratories, as above.

ETHYL. Ethyl Corporation, 100 Park Avenue Building, Park Avenue at 41st Street, New York 7, New York.

As a public service the Ethyl Corporation produces and distributes films and filmstrips to explain what gasoline is, how it is produced, how used, and how research has steadily improved its quality. These productions also show how farm machinery is constructed, how operated and how it should be cared for. In the United States much of this material is obtainable in free loan, for appropriate use; for display abroad prints may be purchased. All inquiries should be addressed as above.

EvapM. Evaporated Milk Association, 307 North Michigan Avenue, Chicago 1, Illinois.

The Evaporated Milk Association makes films and filmstrips to explain how evaporated milk is made, its qualities, and how it should be used. In the United States this material is loaned free to appropriate groups. For use abroad it is sold. All inquiries should be addressed as above.

EYS. Emerson Yorke Studio, 333 West 52nd Street, New York 19, New York produces motion pictures for all uses.

All inquiries concerning the 35 mm. version of "Fish is Food", should be addressed as above. All inquiries concerning the 16 mm. version should be addressed to Sterling Films, Inc., 316 W. 57th Street, New York, New York.

F&WS. United States Department of the Interior Fish and Wildlife Service, Washington 25, D. C.

To inform the public concerning Government measures taken to preserve wildlife and also to promote the use of fish by the general public and by institutions, the Fish and Wildlife Service produces and distributes educational motion pictures, some of which are designed to show what the wildlife resources of the United States are and why they should be conserved; other productions provide consumer education material concerning the commercial fishing industry and industries allied to commercial fisheries. Motion pictures are also produced for the particular use of industry personnel (fishermen, wholesalers and retailers) to improve techniques utilized within the industry.

Prints may be obtained on loan, free of charge, and information concerning sale of prints, television rights, long term loan and policy for cooperation with industry in production of motion pictures may be obtained by writing to Section of Visual Information, Fish & Wildlife Service, Box 128, College Park, Maryland.

FarmBI. Farm Bureau Insurance Companies, 246 North High Street, Columbus 16, Ohio.

As part of their work in public relations the Farm Bureau Mutual Automobile Insurance Company, the Farm Bureau Mutual Fire Insurance Company and the Farm Bureau Life Insurance Company make motion pictures on matters within the general area of their interest (safety, the family, farm and town relationships, etc.) In the United States this material may be borrowed free; for use abroad prints may be purchased at cost. All inquiries should be addressed as above.

FifoW. Films for Workers, Post Office Box No. 363, New York 18, New York.

Films for Workers has produced several filmstrips on various aspects of union organization and operation. Inquiries regarding the filmstrips, which may also be available from free trade unions abroad, should be addressed as above.

FMSBA. Farmers and Manufacturers Beet Sugar Association, Saginaw 5, Michigan.

The Farmers and Manufacturers Beet Sugar Association produces and distributes motion pictures intended to explain the industry to the public and to disseminate among producers information and skills which will effect economy in production and in refining, so increasing output while lowering cost. These films are available at cost and all inquiries concerning them should be addressed to the Association, as above.

FORD. Ford Motor Company, 3000 Schaefer Road, Dearborn, Michigan.

The Ford Motor Company produces motion pictures and maintains film libraries for their distribution, as a public service to inform the public concerning the construction, operation and maintenance of motor vehicles; and (series on national parks) to suggest automobile travel for pleasure. Prints of these productions are for sale. They may also be borrowed. In the United States inquiries should be addressed to the nearest Ford Film Library (location of which may be learned from Ford

or Lincoln-Mercury dealers). Inquiries originating outside the United States should be addressed to the Ford Motor Company, as above, attention Motion Picture Department.

FPI. Film Publishers, Inc., 25 Broad Street, New York 4, New York.

Film Publishers, Inc., specializes in films and filmstrips to promote better international understanding and intergroup relations. Inquiries concerning the strips listed in this catalogue should be addressed as above.

FRITH. Frith Films, 1816 North Highland, Hollywood 28, California

Frith Films make motion pictures intended to promote understanding and tolerance in homes, communities and internationally by teaching young people to observe and judge the things that happen around them, in the hope that they will be able to adjust themselves to the world in which they will live and contribute to its well being by their understanding and ability to take responsibility. All inquiries should be addressed as above.

GaDH. Georgia State Department of Health, Atlanta, Georgia.

Working through the Southern Educational Film Production Service, Inc., University of Georgia, Athens, and the Health Publications Institute, Inc., Raleigh, North Carolina, the Georgia State Department of Health produced the film Palmour Street listed in this publication to show how parents influence the development of their children and how that influence may be directed to help the children. Principal roles portrayed by members of a Negro family living in Gainesville, Georgia. All inquiries concerning this film should be addressed to Health Publications Institute, Inc., 216 North Dawson Street, Raleigh, North Carolina.

GAR-D. Gardner-Denver Company, Quincy, Illinois.

The Gardner-Denver Company produces and distributes motion pictures on heavy construction work for display in the classrooms of engineering schools, to local chapters of engineering societies, to service clubs, local chapters of contractor organizations or other groups interested in rock excavation. In the United States prints are loaned to such groups. They may be purchased for display abroad. All inquiries should be addressed as above.

Garner. Jay M. Garner, M.D., 723 Elm Street, Winnetka, Illinois.

Dr. Garner and Dr. J. P. Nesselrod made the picture "Sigmoid, Rectum and Anal Canal Endoscopic Views" for display to internes, gastroenterologists, surgeons, general practitioners, medical students and any other persons professionally concerned with the diseases demonstrated, in some of which diagnosis is made directly from the protoscopic findings. Its display is restricted to the medical profession. In the United States prints may be rented. For use abroad they are available on purchase. All inquiries should be addressed to Dr. Garner or American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois, attention Committee on Medical Motion Pictures.

GATE. Gateway Productions, Inc., 1859 Powell St., San Francisco 11, California.

Gateway Productions, Inc., produces and distributes classroom and documentary films. All inquiries should be addressed as above.

GE. The General Electric Company, Advertising and Sales Promotion Division, Schenectady 5, New York.

As a public service the General Electric Company produces films, filmstrips and slides intended to advance general knowledge in every field into which electricity enters. For exhibition in the United States, these materials are obtainable without charge on application to the nearest General Electric office. Outside the United States requests for their purchase or loan should be addressed to the nearest International General Electric Company representative. In Canada, to the Canadian General Electric Company, Toronto.

GenM. General Motors Corporation (Overseas Operations), 1775 Broadway, New York 19, New York.

General Motors Corporation produces and distributes motion pictures as a public service, for the advancement of general appreciation of scientific achievement. In the United States these productions are loaned free of charge to groups (schools, colleges, churches, and social, civic and business organizations). Abroad they may be borrowed or purchased from General Motors plant libraries in Agrentina, Australia, Belgium, Brazil, Chile, Cuba, Denmark, England, Egypt, France, Germany, India, Java, Mexico, New Zealand, Peru, Portugal, South Africa, Spain, Sweden, Switzerland, Uruguay, Venezuela.

GF. Gallagher Films, 113 S. Washington Street, Green Bay, Wisconsin.

This company specializes in industrial and sports films, for sale. For use within the United States prints may also be rented. Inquiries should be addressed as above.

GMILLS. General Mills, Inc., Film Department, 400 Second Avenue, South, Minneapolis, Minnesota.

General Mills, Inc., makes and distributes films as a public service, to advance general appreciation of proper nutrition as a factor in public health. In the United States these productions are available on free loan. The films may be purchased for use abroad. Inquiries should be addressed as above.

Goodyear. Goodyear Tire & Rubber Co., Inc., Akron, Ohio.

The Goodyear Tire & Rubber Co., Inc., produces motion pictures for display to business and professional organizations and educational, religious, fraternal and recreational groups. Prints are for sale. In the United States prints are loaned free. For use abroad prints may be purchased. All inquiries should be addressed as above.

GORHAM. The Gorham Company, Providence 7, Rhode Island.

The Gorham Company's film entitled "This Gracious Heritage" was made to inform the general public concerning the development and accomplishment of silversmithing in the United States. Prints are for sale. In this country they may also be borrowed free of charge. For use abroad they may be purchased or borrowed through approved distribution centers. All inquiries originating in the United States should be addressed to Modern Picture Service, 45 Rockefeller Plaza, New York 20, New York. All other inquiries should be addressed as above.

GPP. General Pictures Productions, Inc., 621 Sixth Avenue, Des Moines 9, Iowa.

The motion pictures made by General Pictures Productions, Inc., are obtainable abroad on sale. In the United States they may also be rented. All inquiries and orders should be addressed as above.

GREYH. The Greyhound Corporation, 2600 Board of Trade Building, Chicago, Illinois.

The Greyhound Corporation produces films as part of its public relations and advertising programs. For information concerning them inquiries from abroad should be addressed to Beaumont & Hohman, Inc., 6 North Michigan Avenue, Chicago 2, Illinois, attention T. R. McCabe. Free loan will be arranged when possible through Greyhound's foreign agencies.

GRUEN. The Gruen Watch Company, Time Hill, Cincinnati 6, Ohio.

The Gruen Watch Company distributes the film entitled "Guardians of Precision" for jewelers and watchmakers professionally concerned with the skills it portrays. The picture was made also for the public interested in knowing what skills are engaged when the jeweller undertakes to clean or repair a fine watch. In the United States prints may be borrowed free for appropriate display. For use abroad prints may be purchased. All inquiries should be addressed as above.

GScout. Girl Scouts of the United States of America, 155 East 44th Street, New York 17, New York.

The Girl Scouts of the United States of America produce films and filmstrips relating to various aspects of Girl Scout work and organization, of interest especially to scout leaders and their troops. Films may be obtained by purchase or rental within the United States; they are available for use abroad by purchase. Filmstrips are available by purchase only. Inquiries regarding purchase should be directed to Visual Aids Service, Girl Scouts of the United States of America, address as above; inquiries regarding rental of films should be directed to Girl Scout Film Library, address as above.

H&H. Handy & Harman, 82 Fulton Street, New York 38, New York.

Handy & Harman produced the films on silversmithing listed in this publication as part of an educational program to reestablish silver as an art medium. All inquiries concerning "Living Silver" should be addressed to A. F. Films, 1600 Broadway, New York 19, New York; and all concerning "Handwrought Silver" to Handy & Harman, as above, attention Craft Service Department.

H&RE&BIU. Hotel & Restaurant Employees & Bartenders International Union, 528 Walnut Street, Cincinnati 2, Ohio.

The film "We Serve the Public," described in this catalogue, is of interest to union members, and those concerned with trade union organization and activities. For use in the United States prints may be rented from Workers Education Bureau, American Federation of Labor, 724 Ninth Street N. W., Washington 1, D. C. For use abroad they may be purchased. Inquiries originating abroad should be directed to the Union, address as above.

HAD. Hadassah, 1819 Broadway, New York 23, New York.

Hadassah, the Women's Zionist Organization of America, Inc., makes films to acquaint the public with the work of Hadassah and to help interpret the spirit, progress and needs of the people of the State of Israel.

Hamilton. Hamilton Watch Company, Lancaster, Pennsylvania.

Hamilton Watch Company made and distributes the film entitled "How a Watch Works" for the information of owners of watches to assist them to understand and care for their watches. In the United States prints may be borrowed free for display to appropriate employee and consumer groups. All domestic inquiries should be addressed as above, attention Department of Dealer Service.

Outside the United States and its possessions, the film is available for showing only on individually negotiated arrangements with the Company. Application for foreign showings should be directed to the Sales Promotion Manager of the Hamilton Watch Company, Lancaster, Pennsylvania.

HamM. Federal Security Agency, United States Public Health Service, National Institutes of Health, Rocky Mountain Laboratory, Hamilton, Montana.

For educational use the Rocky Mountain Laboratory has prepared films on subjects connected with its research work on infectious diseases. In the United States the films may be borrowed from the Rocky Mountain Laboratory. Prints are not available for loan abroad.

Purchase orders for prints of "Experimental Study of St. Louis Encephalitis Virus in Horses" should be addressed to the Eastman Kodak Company, Film Processing Service, Rochester 4, New York. Orders for prints of "Life History of the Rocky Mountain Wood Tick" should be sent to the Coburn Laboratory, 164 North Wacker Drive, Chicago 8, Illinois. Copies of such orders should be furnished the Rocky Mountain Laboratory.

HamPaC. Hammermill Paper Company, 1585 East Lake Road, Erie 6, Pennsylvania.

Hammermill Paper Company made the film entitled "The Gift of Ts'ai Lun--Paper" for advertising purposes and to advance public relations by showing the importance of paper and how it is made. Prints are available on free loan for appropriate display in the United States. All domestic inquiries should be addressed as above, attention Educational Service, Advertising Department. Nineteen foreign language versions (20 min.) exist concerning which foreign inquiries may be addressed to the United States diplomatic mission or consular office nearest to the inquirer.

Hancock. John Hancock Mutual Life Insurance Company, Boston, Massachusetts.

John Hancock Mutual Life Insurance Company produced the films listed under its symbol in this publication as part of its public relations program and to show the public in general what is being accomplished in modern office building and apartment house construction in the United States and to illustrate how advanced planning can improve community and family living. In the United States prints of the pictures may be borrowed for appropriate display. For use abroad they may be purchased. All inquiries should be addressed as above, attention Manager, Photographic Bureau.

Har-Sey. Harris-Seybold Company, 4510 East 71st Street, Cleveland 5, Ohio.

Harris-Seybold Company made and distribute the films listed under their symbol in this catalogue to explain the offset lithography process and demonstrate its advantages over other forms of printing. Prints of these pictures are for sale at cost; or may be borrowed for limited periods. In the United States inquiries should be addressed as above. Abroad they should be directed to the Company agent nearest to inquirer or as above.

H-FA. The Holstein-Friesian Association of America, Brattleboro, Vermont.

The Holstein-Friesian Association of America makes and distributes motion pictures intended to inform the public concerning the Holstein-Friesian breed of dairy cattle, how to care for high bred stock, and why the registration of purebred animals is important. In the United States prints of these productions are available on loan for appropriate display. For use abroad prints may be purchased. All inquiries should be addressed as above.

HFE. Hollywood Film Enterprises, Inc., 6060 Sunset Boulevard, Hollywood 28, California.

Hollywood Film Enterprises produce and distribute 8 mm. and 16 mm. films. All inquiries should be addressed as above.

HL. Hawley-Lord, Incorporated, 61 West Fiftysixth Street, New York 19, New York.

Hawley-Lord, Inc., does a wholesale business, specializing in films and filmstrips in black and white and in color, sound and silent, on wild life and sports, particularly hunting and fishing. Its productions may be obtained by purchase only. Film dealers, libraries, etc., should address all communications as above.

HOLST. Kenneth L. Holst, Audio-Visual Education Service, 1399 North Lake Avenue, Pasadena 6, California.

This service produces films on occasion, for educational and religious pruposes only. All inquiries should be addressed as above.

Humble. Humble Oil & Refining Company, Houston 1, Texas.

Humble Oil & Refining Company produces and distributes motion pictures to inform the public of the importance of the oil industry to modern civilization, to illustrate how an oil producing company operates and to show what precautions should be and are taken to safeguard workers. Those listed in this catalogue deal specifically with operating procedures and problems. In the United States prints may be borrowed free within the Company's operating area (southern nine states from Florida to California). For use abroad prints may be purchased from the Company. All inquiries should be addressed as above.

Huyck. F. C. Huyck & Sons, Kenwood Mills, Rensselaer, New York.

F. C. Huyck & Sons made the film "Paper --Pacemaker of Progress" listed in this publication on the occasion of the 75th anniversary of the establishment of the company as a tribute to the paper industry, especially to its part in the advancement of civilization. In the United States prints are available free of charge for display in institutions, schools, civic and business organizations. For use abroad prints may be purchased at cost. All inquiries should be addressed as above.

HyTest. International Shoe Company, 1509 Washington Avenue, St. Louis 3, Missouri.

International Shoe Company made the film "One Ounce of Safety" listed in this publication to promote the wearing of safety shoes by workers liable, otherwise, to injury to their feet. Prints of the film may be purchased or borrowed. All inquiries should be addressed as above, attention Hy-Test Division.

IAA. International Acetylene Association, 30 East 42nd Street, New York.

The International Acetylene Association made the film "The Oxy-Acetylene Flame --Master of Metals" (listed in this publication) in cooperation with the United States Department of the Interior, Bureau of Mines, for distribution to schools, colleges, scientific and technical societies, business and labor organizations, civic and any other similar groups interested to learn how oxy-acetylene welding, soldering, brazing, treating and hardening are done, how an oxy-acetylene torch is constructed and how it works. In the United States prints may be borrowed of the Graphic Services Section of the Bureau of Mines, 4800 Forbes Street, Pittsburgh 13, Pennsylvania. Prints may be purchased for use abroad. All inquiries concerning such purchase should be addressed to the Association, as above.

IAICM. International Association of Ice Cream Manufacturers, 1105 Barr Building, Washington 6, D. C.

The International Association of Ice Cream Manufacturers, representing retail and wholesale manufacturers in the United States, Canada, and abroad, sponsored the film "For All the Ages" described in this catalogue. The film is available for purchase or rental in the United States and Canada; it may be purchased for use elsewhere. All inquiries should be addressed as above.

ICCF. Ida Cason Callaway Foundation, Hamilton, Georgia.

The Ida Cason Callaway Foundation made the film entitled "Better Farms for a Greater Georgia" to show what cooperation has done in Georgia and may do elsewhere to reclaim land, improve farms and raise standard of rural living. All inquiries concerning the picture should be addressed to the University of Georgia, College of Agriculture, Athens, Georgia.

IdaFN. Idaho First National Bank, Boise, Idaho.

Idaho First National Bank made the film entitled "Idaho Adventure in Enterprize" (listed in this publication) as part of its public relations program. For appropriate display in the United States prints may be borrowed; for use abroad they may be purchased. All inquiries should be addressed as above, attention E. C. Underhill, Cashier.

I. I-A. A. Institute of Inter-American Affairs, 333 Third Street, N. W. Washington, D. C.

The motion pictures produced by the Institute in color only were made for use in the American republics, as the environment and persons depicted make plain; but they are found useful wherever else the same general social conditions prevail.

These films are available on sale only. There is no restriction on use except of four Disney cartoons, which may not be displayed in theatres. All inquiries and orders should be addressed to the Institute.

The films produced by the Institute of Inter-American Affairs rate very good to excellent for use in less-developed areas. On the whole they are simple, direct, and effective. The films are highly recommendable although the color is not up to American high standard.

ILI. Institute of Life Insurance, 488 Madison Avenue, New York 22, New York.

The Institute of Life Insurance produces and distributes films and filmstrips to bring to the public a better understanding of the life insurance business and the service it performs to the individual and to the community as a whole. All inquiries concerning the Institute's productions should be addressed as above.

IND. Indiana University, Division of Adult Education and Public Services, Audio-Visual Center, 1804 East Tenth Street, Bloomington, Indiana.

Indiana University's Audio-Visual Center provides professional staff, materials, and production services to other university departments and to Indiana schools and communities. Motion pictures and other audio-visual materials are made to meet the needs for documenting and interpreting research findings and for instructional use. In the United States, the films are available on a service charge basis from Indiana University and from a number of other university lending libraries which buy prints. Prints may be purchased from the Audio-Visual Center, Indiana University, to which Center all inquiries from abroad should be addressed.

IndEC. Industrial Engineering College, 3309 West Boulevard, Chicago 24, Illinois.

The Industrial Engineering College is concerned with such problems of industrial engineering as timestudy, job evaluation, wage incentives, techniques of methods engineering and cost reduction, the economical use of space. The College plans a series of films on these and related subjects of which the first is listed in this publication. For appropriate display in the United States prints may be rented. For use abroad they may be purchased. Further details may be obtained on inquiry addressed as above.

IndLi. Indiana Limestone Institute, Bedford, Indiana.

Indiana Limestone Institute produced the film entitled "The Nation's Building Stone" to acquaint the general public with uses and qualities of limestone, the way in which Indiana limestone is quarried by modern methods, and how it is prepared for shipment. Prints may be borrowed for appropriate display in the United States. For use abroad prints may be purchased. All inquiries should be addressed as above.

InstF. Instructional Films Inc., 1150 Wilmette Avenue, Wilmette, Illinois.

Instructional Films Inc. owns reproduction rights to, and distributes, films and filmstrips for classroom use which were made by several independent producers. Teacher's and discussion leader's guides accompany the films and strips, to indicate grade levels and areas for which the material is intended (in the United States) and to suggest how it may be followed up in discussion, related activities and review. These films and filmstrips are obtainable abroad on purchase only. Foreign inquiries and orders should be addressed as above, attention Overseas Relations.

IntCPC. International Cellucotton Products Company, 919 North Michigan Avenue, Chicago, Illinois.

The International Cellucotton Products Company produces and distributes as a public service films intended to show how to avoid ill health due to common cold. A Spanish version is available of "How to Catch a Cold," cartoon listed in this publication. Prints of both the English and Spanish versions are available on long-term lease or may be borrowed for short terms free for use in English and Spanish-speaking countries. Inquiries originating within the United States should be addressed to Association Films, Inc., 35 West 45th Street, New York 19, New York. Inquiries originating abroad should be addressed to the Company, as above.

InterO. Interstate Oil Compact Commission, P. O. Box 3127, State Capitol, Oklahoma City 5, Oklahoma.

The Interstate Oil Compact Commission is primarily concerned with the conservation of oil and gas. The film "Oil for Tomorrow", listed in this catalogue, is available on loan, without charge within the United States; for use abroad prints may be purchased. All inquiries should be addressed as above.

INTF. International Film Foundation, Inc., 1600 Broadway, New York 19, New York.

The International Film Foundation makes motion pictures to combat group prejudice and promote international understanding. In the United States prints of the Foundation's productions may be purchased from the McGraw-Hill Book Company, 330 West 42nd Street, New York 18, New York, or rented from the International Film Foundation, address as above. Abroad, prints may be borrowed through the United States diplomatic or consular office nearest to the inquirer, or purchased by order addressed to the McGraw-Hill Book Company.

IntFB. International Film Bureau, Inc., 57 East Jackson Boulevard, Chicago 4, Illinois.

The International Film Bureau produces and distributes films of value to schools, universities, public libraries, medical and health societies, art and drama organizations and adult groups, particularly in fields of art, social sciences, Spanish, French, psychiatry, psychology and medicine. For use within the United States prints of the Bureau's films may be rented as well as purchased. For use abroad they may be purchased. All inquiries should be addressed as above.

INT-GeoS. United States Department of the Interior, Geological Survey, Washington 25, D. C.

The motion pictures listed in this publication produced by the United States Geological Survey in collaboration with the Pan American Institute of Geography and History, are training films and available free of charge in the United States for limited circulation to technical groups and to college engineering departments for instructional purposes in connection with courses in civil engineering, photogrammetry, and cartography. All inquiries originating in the United States should be addressed as above. For use in the other American Republics prints may be borrowed. For use elsewhere abroad they may be purchased. All inquiries originating outside the United States should be addressed to the Pan American Institute of Geography and History, c/o Bureau of the Budget, Washington 25, D. C.

IntGP. International Geographic Pictures, 1776 Broadway, New York 19, New York.

For classroom use International Geographic Pictures produces films on various aspects of the history of the United States and of its possessions, and the effect of territorial adjustments on the struggle of democracy. All inquiries should be addressed as above. Sales restricted, for foreign distribution, to companies with offices in United States.

Int Har. International Harvester Company, 180 North Michigan Avenue, Chicago 1, Illinois.

The International Harvester Company produces films designed to advance the knowledge of better agricultural methods, soil conservation, dairying, cattle raising, forestry, road construction and maintenance, transportation and mining, through the use

of International Harvester products. Inquiries originating in the United States regarding the use of these films in the United States or Canada should be addressed as above.

In addition, the films are produced as sales aids to companies affiliated with International Harvester and distributors of its products outside the United States and Canada, and use by others is restricted by the International Harvester Export Company, its overseas affiliate companies or representatives to meet individual requirements. Therefore, all foreign inquiries (except from Canada) should be addressed to the International Harvester affiliate company in the country of application. Where no International Harvester affiliate company may be contacted, inquiries should be directed to International Harvester Export Company, Sales Promotion, 180 North Michigan Avenue, Chicago 1, Illinois.

IntLGW. International Ladies' Garment Workers' Union, 1710 Broadway, New York 19, New York.

In celebration of the 50th anniversary of its organization, the International Ladies' Garment Workers' Union, American Federation of Labor, produced the film "With These Hands" described in this catalogue Prints may be purchased or rented from the Union, address as above attention Educational Department. Requests for foreign language versions of the picture should be directed to the United States diplomatic or consular post nearest to the applicant.

Inquiries relating to other films and filmstrips produced by the Union on various aspects of work in the garment industry should be directed to the Union, address as above.

IO. State University of Iowa, Extension Division, Bureau of Audio-Visual Instruction, Iowa City, Iowa.

Films made by the University of Iowa grow out of research projects on the compus. All are produced primarily for use in Iowa, especially in the University, but many are found useful in other schools, in industries and in adult education.

The sale and distribution of Rutgers Biological Instructional Motion Pictures marked IO-R have been added to the library. The production dates of these could not be learned.

All inquiries should be addressed as above.

IOSC. Iowa State College, Ames, Iowa.

Visual Aids Production, Iowa State College produces films of interest to agricultural specialists, farmers, dairymen, home economics teachers and their classes, engineering students, termite control operators. The films are available for purchase or rental abroad, and within the United States. Arrangements are made for the free loan of preview prints to prospective purchasers in the United States and in English-speaking countries. All inquiries regarding purchase or preview should be directed to Visual Aids Production, address as above; all inquiries regarding rental of films should be directed to Visual Instruction Service, same address.

ISEA. Iowa State Educational Association, 415 Shops Building, Des Moines 9, Iowa.

This organization of Iowa teachers uses films to promote the professional growth of teachers, to recruit teachers at high school and college level and to promote legislation on behalf of schools. Its film listed in this catalogue falls within the last group.

The film may be obtained on free loan within the U.S.A. Inquiries should be addressed as above, attention Audio-Visual Division. Or it may be purchased. Orders should be addressed to General Pictures Productions, Inc. 621 Sixth Avenue, Des Moines, Iowa.

J&J Johnson & Johnson New Brunswick, New Jersey

Johnson & Johnson are manufacturers of surgical dressings, orthopedic and chiropody products, dental supplies, baby specialties, and other hospital and first-aid products. They produce motion picture films as part of an educational program designed to disseminate information to medical and nursing schools, hospitals, and other professional groups. Their films have the approval of the various interested organizations in each field, such as the Children's Bureau, U.S. Department of Labor; the Visiting Nurse Service of New York; the U.S. Public Health Service; the U.S. Bureau of Mines; and the American College of Surgeons. In the United States these films are loaned to qualified groups. For use outside the United States, prints may be purchases at cost, for shipment abroad, from Eddie Albert Productions, Inc., 6509 De Longpre Avenue, Hollywood 28, California.

JamH. The Jam Handy Organization, 2821 East Grand Boulevard, Detroit 11, Michigan.

The Jam Handy Organization produces films and filmstrips for instructional uses at elementary and secondary classroom levels. All inquiries should be addressed as above.

JHMF. The Jacques Holinger Memeorial Fund, 700 North Michigan Avenue, Chicago 11, Illinois.

The Jacques Holinger Memorial Fund, established in 1945, is a corporation registered in the State of Illinois for research and education. Its purpose is to produce and distribute still and motion pictures of the ear nose and throat and related fields. These clinical records are teaching material for medical students and suitable for presentation

before the medical profession. All inquiries concerning the Jacques Holinger Memorial Fund films listed in this Supplement should be addressed as above.

JHUNT. Johnson Hunt Productions, 6509 De Longpre Avenue, Hollywood 28, California.

Johnson Hunt Productions produce and distribute motion pictures and filmstrips for use in schools and by libraries and other educational groups. Inquiries from domestic sources should be addressed as above. Inquiries from abroad should be addressed to Hollywood Film International, 1801 South Olive Street, Los Angeles 15, California.

JMH. Jewish Memorial Hospital, Broadway and 196th Street, New York 34, New York.

The Jewish Memorial Hospital (non-sectarian) produced the motion picture "Treatment of Erythroblastosis Fetalis by Substitution Transfusion" listed in this catalogue to disseminate results of research done in its Erythroblastosis Fetalis Clinic. Prints of the picture are available at cost. The film is also loaned for display to interested groups. All inquiries should be addressed as above, attention Dr. Harry Wallerstein.

JocCl. The Jockey Club, 250 Park Avenue, New York, New York.

The Jockey Club made the film so entitled, which is listed in this publication, to inform the public concerning the work of the Club and especially concerning its contribution to racing and to stock breeding in the United States. In the United States prints may be borrowed for appropriate display. Domestic inquiries should be addressed to Association Films, Inc., 347 Madison Avenue, New York 17, New York. For use abroad prints may be purchased. All inquiries originating abroad should be addressed to the Club, as above.

JrLeague. Junior League of San Francisco, Inc., Hotel Mark Hopkins, San Francisco 8, California.

The Junior League of San Francisco made the film "A Place in the Sun" listed in this publication to help cerebral palsied children everywhere by showing what the State of California is doing to help them in special public schools where cerebral palsy is understood and modern treatment practised. All inquiries concerning the film should be addressed as above.

KanSt. Kansas State College, Manhattan, Kansas.

The Kansas Poultry Industry Council, the Kansas State Board of Agriculture, and the Department of Poultry Husbandry, Kansas State College, produced the film "The Good Egg", described in this catalogue. The purpose of the film is to aid in the improvement and maintenance of quality of market eggs, and afford a better appreciation of eggs to those who produce, process, merchandise, and consume them. Within the United States the film may be purchased or rented. For use abroad, prints may be bought. All inquiries should be directed to Department of Poultry Husbandry, address as above.

KATZ. Elias Katz, Ph. D., 808 Sir Francis Drake Boulevard, Kentfield, California.

Dr. Elias Katz, has photographed and directed a number of silent motion pictures relating to various aspects of the arts and crafts, of interest to art schools and general audiences. Within the United States the films may be purchased or rented. For use abroad prints may be bought. All inquiries should be addressed as above.

KB. Knowledge Builders, Visual Education Center Building, Lowell Avenue and Cherry Lane, Floral Park, L. I., New York.

Knowledge Builders produce instructional films designed to aid the teacher in better classroom teaching, A teacher's guide accompanies each subject, stating the purpose of the film and suggesting how it may best be used. Knowledge Builders classroom films are obtainable abroad on purchase only. All orders should be addressed as above.

KERN. Kern County Union High School, Bakersfield, California.

The Supervisor of Library Services, Kern County Union High School, made the filmstrip "Use Your Library" listed in this catalogue to familiarize junior and senior high school students with facilities offered to them by any good public library. All inquiries should be addressed to the American Library Association, 50 East Huron Street, Chicago 11, Illinois.

KRAFT. Kraft Foods Company, 500 Peshtigo Court, Chicago 90, Illinois.

The Kraft Foods Company sponsors and produces films and filmstrips of interest to farm groups and general audiences, on dairying and the production and uses of cheeses. For use in the United States, prints are available on free loan. For use abroad, they may be purchased. All inquiries should be addressed to the Company, as above. Prints of "The Cheese Family Album" may be borrowed also from Modern Talking Picture Service, Incorporated, 142 East Ontario, Chicago, Illinois.

LAWP. Los Angeles Department of Water and Power, 207 South Broadway, Los Angeles, California.

The Los Angeles City-Owned Department of Water and Power distributes motion pictures it has produced (to show the importance of water and power especially to large metropolitan

areas) and other films in the same general field of interest. Prints are obtainable on free loan within the area around Los Angeles. They are for sale (subject to approval) for use elsewhere. All inquiries should be addressed as above, attention Public Relations Division.

LBFC. Lynchburg Foundry Company, Lynchburg, Virginia.

As part of its public relations program the Lynchburg Foundry Company produced the film listed in this publication which shows how molds and castings are made. Prints may be purchased or loans arranged. All inquiries should be addressed as above.

LEX. Lexington School for the Deaf, 904 Lexington Avenue, New York 21, New York.

Under terms of a grant by the Nathan Hofheimer Foundation, Inc., the Lexington School for the Deaf produced the film entitled "Eyes that Hear" to show how deaf children are educated there. The purpose of the picture is to inform the public, especially parents of deaf children, of the degree to which children so handicapped can be educated to become useful self-supporting citizens. All inquiries concerning this picture should be addressed as above, attention Dr. Clarence D. O'Connor, Superintendent.

LibFilms. Library Films, 25 West 45th Street, New York 36, New York.

Library Films sells films for general 16 mm., non theatrical display. All inquiries concerning subjects available should be addressed as above.

LIFE. Time, Inc., 9 Rockefeller Plaza, New York 20, New York.

LIFE has produced filmstrips for use in schools, colleges, museums, libraries, and churches to make available to them material selected from the pictorial resources of LIFE Magazine. Inquiries and orders should be addressed as above.

LincEC. The Lincoln Electric Company, 22801 St. Clair Avenue, Cleveland 17, Ohio.

The Lincoln Electric Company produces and distributes motion pictures for display before groups (shop, management and engineering levels) interested in electric welding and the part it plays in modern construction. In the United States prints may be purchased or borrowed free. For use abroad they must be purchased. All inquiries should be addressed as above.

LindEng. Lindberg Engineering Company, 2450 West Hubbard Street, Chicago 12, Illinois.

The Lindberg Engineering Company made the film entitled "Heat Treating Hints" presented in this publication as a report by practical heat treaters addressed to their fellow craftsmen and the younger men in heat treating. All inquiries concerning it should be addressed as above.

LinkB. Link-Belt Company, 307 North Michigan Avenue, Chicago 1, Illinois.

Link-Belt Company made the films listed in this catalogue under its symbol for display before engineering and operating groups, technical societies, conventions and other assemblies of industrial groups, students at technical colleges, classes in industrial administration, etc., etc. Prints are loaned free by special arrangement. All inquiries should be addressed as above.

Macmil. The Macmillan Company, 60 Fifth Avenue, New York 11, New York.

The Macmillan Company produced the filmstrip series "General Biology" listed in this publication as a teaching aid to accompany the third edition of James Watt Mavor's textbook of the same title. The three filmstrips are available by purchase as a set only. All inquiries should be addressed as above.

MAES. Mississippi Extension Service, Agriculture and Home Economics, State College, Mississippi.

The motion picture "Twelve Months Green" listed in this catalogue was made by the Southern Educational Film Service with subject matter assistance from the Mississippi Extension Service. Requests for loan or rental of prints should be addressed as above. For use abroad prints may be purchased of the Southern Educational Film Service, Athens, Georgia.

MAHNKE. Vocational Guidance Films, Inc., 215 East 3rd Street, Des Moines 9, Iowa.

Vocational Guidance Films, Inc., specializes in motion pictures and filmstrips intended to instruct youth concerning vocations in order to enable young people to choose their life work wisely with understanding of occupational requirements, drawbacks, advantages and future. All inquiries concerning these productions should be addressed to Carl F. Mahnke Productions, at the above address.

Mansfield. Perry-Mansfield Camps, Steamboat Springs, Colorado.

The series of motion pictures on the dance listed in this catalogue under the symbol of the Perry-Mansfield Camps was produced to provide exercises in fundamental movement of rhythmic body mechanics and techniques of contemporary dance. The films may be studied as the basis for general physical fitness leading into professional dancing. For use in the United States prints may be rented as well as purchased. For use abroad they may be purchased. All inquiries should be addressed as above, attention Portia Mansfield.

MaViM. Maryland and Virginia Milk Producers Association, Incorporated, 1756 K Street, Northwest, Washington 6, D. C.

The Maryland and Virginia Milk Producers Association, Incorporated, sponsored the film "Milk--For Goodness Sake" described in this catalogue. The film, of interest to general audiences, may be made available for periodic loan to agencies of the United States Government, or for purchase; it may be obtained by purchase for use abroad. All inquiries should be addressed as above.

MayaD. Maya Deren, 61 Morton Street, New York 14, New York.

Maya Deren produces films primarily of interest to university, museum, art film, and dance groups. They are available for rental as well as purchase within the United States; for use abroad, they may be purchased. All inquiries should be addressed as above.

MAYO. Mayo Clinic, Clinical Laboratories, Rochester, Minnesota.

The Mayo Clinic uses films to disseminate (to physicians and medical students) the results of research done by staff members. All inquiries should be addressed as above, attention Dr. Thomas Byrd Magath.

McC. T. M. McClintock Productions, Six Heathcote Road, Scarsdale, New York.

T. M. McClintock Productions make filmstrips for educational purposes. All communications concerning those listed in this catalogue should be addressed as above.

McCall. Dr. Milton L. McCall, 1930 Chestnut Street, Philadelphia 3, Pennsylvania.

The film entitled "Norton Paravesical Extraperitoneal Cesarian Operation" listed in this publication was made to advance knowledge among surgeons and prints of it may be purchased from Dr. McCall, address as above.

McG-H. McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 18, New York.

The McGraw-Hill Book Company "packages" "teaching tools," that is, correlates films and filmstrips with textbooks on which they are based. The films and strips are, however, available as separate items.

All inquiries concerning them which originate in the United States and Canada should be addressed as above, attention Text-Film Department. Foreign distribution of these materials (except in Canada) is handled by Loew's International Corporation, 1540 Broadway, New York 19, New York.

MCVa. Dr. E. H. Ingersoll, Medical College of Virginia, 1200 East Broad Street, Richmond, Virginia.

The film entitled "The Management of Cicatrical Strictures of the Esophagus" is a clinical film intended to aid in the teaching of surgery at graduate medical and medical student levels. All inquiries concerning it should be addressed as above.

MenniF. The Menninger Foundation, 3617 West Sixth Street, Topeka, Kansas.

The Menninger Foundation, which is concerned with psychiatric treatment, education and research, produces films of interest to psychologists, psychiatrists, and students engaged in behavior observations. The films may be obtained within the United States by purchase or rental from the New York University Film Library, 26 Washington Place, New York 3, New York. Inquiries from abroad should be addressed to The Menninger Foundation, as above.

Mercer. Mercer County Schools, Audio Visual Aids Service, Princeton, West Virginia.

The film "Time to Share" was produced by the Mercer County Schools to stimulate study and discussion of problems of organizing the one-room school. Prints may be purchased or rented (within the United States). Study-helps furnished. All inquiries and orders should be addressed as above.

METL. Metropolitan Life Insurance Company, 1 Madison Avenue, New York 10, New York.

The Metropolitan Life Insurance Company uses visual material to educate the public in means to preserve health and prevent and remedy accident and disease. Its films and filmstrips are available in the United States on free loan on application addressed to the Company as above, attention Health and Welfare Division or, if nearer, to the Company at 600 Stockton Street, San Francisco 10, California. They are similarly available in Canada on application to the Company at 180 Wellington Street, Ottawa, Ontario.

The filmstrips listed in this catalogue are available elsewhere abroad to responsible persons free of charge. Request for them should be addressed to Mrs. Elizabeth Lundell, Department of State (IPS), Washington, D. C.

MFGuild. Medical Film Guild, Ltd., 167 West 57th Street, New York 19, New York.

The medical Film Guild produces and distributes teaching films on medical subjects. All inquiries should be addressed as above.

MHFB. Mental Health Film Board, 164 East Thirty-Eighth Street, New York, New York.

Films in the Emotions of Every Day Living Series listed in this publication were

made to present problems for discussion by students of psychology, social workers, parent-teacher groups, and any others interested to know where and how psychology in action can be of help. Competent discussants should be present when the films are displayed. In the United States prints may be borrowed from state or local mental health authorities; or purchased from the International Film Bureau, Inc., 6 North Michigan Avenue, Chicago 2, Illinois. Prints may also be purchased from this Bureau for use abroad.

MichDC. Michigan Department of Conservations, Division of Education, Lansing 13, Michigan.

The Michigan Department of Conservation, Division of Education, produces films relating to wildlife, and various aspects of conservation, outdoor recreation and safety. Loans outside the State of Michigan are restricted to the months of June, July, and August. For use abroad the films may be purchased. Inquiries should be addressed as above.

MICRO. Micro Switch, Freeport, Illinois.

Micro Switch, a division of Minneapolis Honeywell Regulator Company, sponsored the film "Uses Unlimited" described in this catalogue. The film may be made available for free loan within the United States, or for use abroad, upon appropriate request. Inquiries should be addressed as above.

MIF. Milk Industry Foundation, 1625 Eye Street, Washington 6, D.C.

The films on milk production and distribution produced by the Milk Industry Foundation show high mechanization in American dairying. Their primary purpose is to educate farmers in principles and problems of quality milk production and to show them modern methods they may use or adapt to reduce cost of milk production. A secondary purpose is to show consumers how quality milk is produced and so assure them of its excellence.

The Foundation's pictures are obtainable abroad on sale only. Orders should be addressed to the Foundation as above, accompanied by remittance. In the United States prints of most of them may be borrowed from Association Films, Inc., Offices in New York, Chicago, Dallas and San Francisco.

MinHR. The Minneapolis-Honeywell Regulator Company, Minneapolis 8, Minnesota.

The Minneapolis-Honeywell Regulator Company sponsors films useful in teaching courses in basic electricity and basic electronics. The films may be obtained on free loan, upon appropriate request, for use within the United States; they may be obtained by purchase for use abroad. All inquiries should be addressed as above, attention Merchandising Division.

MirroM. Mirror Manufacturers Association, 435 North Michigan Avenue, Chicago 11, Illinois.

The Mirror Manufacturers Association sponsored the filmstrip "It's Done with Mirrors" described in this catalogue. The strip is of interest to architects, interior decorators, mirror manufacturers and distributors, and consumer groups, prints may be purchased. All inquiries should be addressed as above.

MISS. Mississippi State Board of Health, Jackson, Mississippi.

Working through the Southern Educational Film Production Service, Inc., University of Georgia, Athens, Georgia, the Mississippi State, Board of Health cooperates with other similar agencies in the southern States (U.S.A.) to produce motion pictures intended to help raise the level of public understanding especially in fields of health, agriculture and education. The Board's film "Feeling All Right" listed in this catalogue is addressed to adult negro audiences, especially in the Mississippi River delta.

It is distributed by the Communication Materials Center, Columbia University, 413 West 117th Street, New York 27, New York. All inquiries concerning it should be so addressed.

MissoC. Missouri Conservation Commission, Jefferson City, Missouri.

The Missouri Conservation Commission sponsors films relating to fishing, wildlife, and conservation; prints are available for free loan in Missouri, upon appropriate request. All inquiries, domestic and foreign, should be directed to the Commission, address as above.

MIT. Massachusetts Institute of Technology, Department of Electrical Engineering, Cambridge 39, Massachusetts.

The Massachusetts Institute of Technology produces motion pictures for use as teaching tools. Its productions listed in this catalogue are highspeed motion picture studies made with stroboscopic light by a method developed in the laboratories of the Institute. All inquiries concerning them should be addressed as above, attention Professor Harold E. Edgerton.

MONSEN. Monsen-Chicago, Incorporated, 22 East Illinois Street, Chicago 11, Illinois.

Monsen-Chicago, Incorporated, sponsored the filmstrip "Type and Its Origin", described in this catalogue, which is of interest to students of the graphic arts, advertising, and printing, and to general audiences. The filmstrip and accompanying sound recording (33 1/3 or 78 r.p.m.) are available by purchase in the United States and abroad. All inquiries should be addressed as above, attention Education Department.

MTFF. The March of Time Forum Films, 369 Lexington Avenue, New York 17, New York.

The March of Time Forum Edition films are produced for use in schools, churches, clubs industrial and other organizations. Their display is restricted to non-commercial showings and they may not be televised. The films are for sale and for rent. All inquiries concerning them should be addressed to McGraw-Hill Book Company, 330 West 42nd Street, New York 18, New York.

NaAFC. National Association of Food Chains, 726 Jackson Place, Washington 6, D. C.

The film on modern food distribution, "The Spud and You", described in this catalogue, is of interest to the general public as well as to all persons associated with the operation of food stores. All inquiries should be addressed as above.

NaALGM. National Association of Leather Glove Manufacturers, Incorporated, 52 South Main Street, Goversville, New York.

The filmstrips "Personal Contribution" and "The Romance of Gloves" described in this catalogue are of interest to department sales personnel and to high school and college students of home economics and of retail salesmanship. Prints may be borrowed for use within the United States; for use abroad they may be purchased. All inquiries should be addressed as above.

NaBFUn. The National Board of Fire Underwriters, 85 John Street, New York 38, New York.

The National Board of Fire Underwriters produces films on fire prevention and fire insurance, which are available for loan within the United States and may be purchased for use abroad. All inquiries should be addressed to Bureau of Communication Research, 13 East 37th Street, New York 17, New York.

NaCran. National Cranberry Association, Hanson, Massachusetts.

"The Cranberry Story" described in this catalogue is intended for educational use by clubs, organizations, and schools interested in the history and handling of the crop. Prints are available for loan within the United States; for use abroad they may be purchased. All inquiries should be directed to Modern Talking Picture Service Incorporated, 45 Rockefeller Plaza, New York 20, New York.

NAREB. National Association of Real Estate Boards, 22 West Monroe Street, Chicago 3, Illinois.

The National Association of Real Estate Boards and the Boston Institute, Boston, Massachusetts, have produced filmstrips on various aspects of the real estate business. These may be rented for use in the United States or abroad. All inquiries should be addressed as above, attention Department of Education.

NaRMIC. National Retailers Mutual Insurance Company, 20 North Wacker Drive, Chicago 6, Illinois.

The film "A Word to the Wise" listed in this catalogue is of interest to all concerned with fire prevention in dwellings. Prints may be borrowed for use within the United States; for use here and abroad they may be purchased. All inquiries should be addressed as above.

NaSoy. National Soybean Crop Improvement Council, Box 108, Decatur, Indiana.

The National Soybean Crop Improvement Council has sponsored several films (among them "Soybeans--The Feature Story", listed in this catalogue) which are of interest to soybean growers and users and the general public. Prints may be borrowed for use within the United States, upon acceptable request made to Modern Talking Picture Service, 142 East Ontario Street, Chicago 11, Illinois. For use abroad, prints may be purchased; purchase orders should be addressed to Reid H. Ray Film Industries, 2269 Ford Parkway, St. Paul, Minnesota.

NatDC. National Dairy Council, 111 North Canal Street, Chicago, Illinois.

The National Dairy Council has produced a number of films to acquaint the public with the nutritional value of dairy products, their production and processing. "Weight Reduction through Diet," listed in this publication, documents an actual study made under the supervision of Dr. Margaret Ohlson at Michigan State College. In the United States prints may be borrowed from Association Films, Ind., 35 West 45th Street, New York, New York. For use abroad they may be purchased of the Council, address as above.

NatDPC. National Dairy Products Corporation, 230 Park Avenue, New York 17, New York.

The National Dairy Products Corporation makes films to help dairymen produce more efficiently through the use of improved dairying methods. Prints may be purchased from the Corporation, address as above.

NatEdA. National Education Association, 1201 16th Street, Washington 6, D. C.

The National Education Association sponsors films relating to the teaching profession and the improvement of teaching techniques. The films "Assignment: Tomorrow" and "School in Centerville" described in this catalogue may be purchased or borrowed for use within the United States. Domestic inquiries should be directed to the National Education Association, address as above, attention Department of Audio-Visual Education if "Assignment: Tomorrow" is concerned, or attention Department of Rural Education in the case of "School in Centerville". Inquiries originating abroad should be addressed to the nearest United States diplomatic or consular office, attention U.S.I.S.

NatFORE. National Foremen's Institute, Inc., Bureau of Business Practice, 100 Garfield Avenue, London, Connecticut.

The National Foremen's Institute produces supervisory and employee training materials, including filmstrips to help management and labor to achieve better business practices. These materials are for sale. All inquiries should be addressed as above.

NatGar. National Garden Bureau, 210 South Desplaines Street, Chicago 6, Illinois.

The National Garden Bureau produces and distributes films on gardening, particularly the production and use of seeds. Prints are available on loan within the United States. For use for educational purposes (not for specific commercial promotion), abroad by institutions or organizations, prints may be purchased at cost. All inquiries should be addressed as above.

NatTbA. National Tuberculosis Association 1790 Broadway, New York 19, New York.

The National Tuberculosis Association uses films and filmstrips to disseminate information on ways and means to recognize tuberculosis, and to treat, cure and prevent the disease. All inquiries from abroad should be addressed as above.

NCC. Union Carbide and Carbon Corporation, Foreign Department, 30 East Forty-second Street, New York 17, New York.

The Union Carbide and Carbon Corporation produces films to advertise its products by explaining them scientifically. Requests for information concerning its pictures should be addressed as above.

NCCJ. The National Conference of Christians and Jews, Inc., 381 Fourth Avenue New York 16, New York.

This organization uses films to promote its objectives, which are ". . .to promote justice, amity, understanding and co-operation among Protestants, Catholics and Jews, and to analyze, moderate and finally eliminate intergroup prejudices which disfigure and distort religious, business, social and political relations, with a view to the establishment of a social order in which the religious ideals of brotherhood and justice shall become the standards of human relationships." (NCCJ By-laws)
The Conference's films are available abroad on purchase only; in the United States they may be borrowed free of charge. All inquiries and orders should be addressed as above.

NCSBH. North Carolina State Board of Health, Raleigh, North Carolina.

The North Carolina State Board of Health makes and distributes films for use in health education programs carried on in cooperation with lay and professional groups. All inquiries should be addressed to the Health Publications Institute, Inc., 216 North Dawson Street, Raleigh, North Carolina.

NEFilm. National Educational Films, Incorporated, 165 West 46th Street, New York 19, New York.

The film "The Duties of a Secretary" listed in this catalogue is intended for display to office personnel, secretaries, graduates and undergraduates of business and secretarial schools, All inquiries should be addressed as above.

NFIP. The National Foundation for Infantile Paralysis, 120 Broadway, New York 5, New York.

The National Foundation for Infantile Paralysis exists to advance research into the cause and cure of poliomyelitis, and to interpret the disease and its care to the medical profession and the general public. Its films are available in the United States on free loan to qualified groups. They may also be purchased at cost price. All inquiries should be addressed as above.

NHUC. National Highway Users Conference, Inc., 952 National Press Building, Washington 4, D. C.

The National Highway Users Conference is an organization of the highway transportation associations of America. The Conference distributes the film listed in this catalogue "Horizons Unlimited". It was produced by the Automobile Manufacturers Association in cooperation with national associations of manufacturers of and dealers in motor vehicles, owners and operators of buses and trucks and other organizations interested in all types of highway transportation. The conference also distributes the filmstrip "Smart Driving". It was produced jointly by the Conference and the National Commission on Safety Education of the National Education Association. All inquiries should be addressed as above, attention Mr. Harold Gray, Manager, Special Activities.

NJZinc. The New Jersey Zinc Company, 160 Front Street, New York 38, New York.

The New Jersey Zinc Company has sponsored films related to paint and to die casting, of interest to production and engineering personnel, paint manufacturers, painters, and general audiences. Prints are available within the United States on loan; they may be purchased for use abroad. All inquiries should be addressed as above.

NMP. National Motion Pictures Company, Mooresville, Indiana.

The National Motion Pictures Company produces films to be sold to health departments, health organizations, schools, and universities for use in public health education of the lay public.

NSC. National Safety Council, 425 North Michigan Avenue, Chicago 11, Illinois.

The National Safety Council's program of research into causes of accidents and ways and means to minimize and prevent them are supported by dues for membership in the Council paid by private industry in the United States. In addition to printed matter of many types the Council uses films and filmstrips to disseminate the results of its research. All inquiries concerning the Council's materials should be addressed as above.

NSPB. National Society for the Prevention of Blindness, 1790 Broadway, New York 19, New York.

The National Society for the Prevention of Blindness and as a means to its objective assists in the display of films produced by many other organizations on causes, prevention and cure of blindness. Application for a list of these films, recommended by the Society, may be made to the Society.

The Society's own films and filmstrips are obtainable abroad by purchase only. In the United States the films may be purchased, rented, or under certain conditions, they may be borrowed. All inquiries should be addressed as above.

NTSC. North Texas State College, Department of Biology, Denton, Texas.

The film on fresh water organisms from Texas reservoir lakes listed in this catalogue was produced to show sanitary engineers, sanitarians, limnologists, bacteriologists and other individuals interested in water supply and water problems, the major organisms that contribute to tastes and odors in water; and to make generally available knowledge concerning algae. All inquiries concerning the film should be addressed as above, attention Mr. J. K. G. Silvey, Professor of Biology, Chairman, Science Division.

NU. Northwestern University Medical School, 303 East Chicago Avenue, Chicago 11, Illinois.

The Audio-Visual Medical Education Department of Northwestern University makes films for use, primarily, in medical schools of the United States and Canada. They may also be rented by medical associations, nursing schools and other groups legitimately interested in their content. Abroad, these productions are available on purchase only. All inquiries should be addressed as above, attention Audio-Visual Medical Education Department.

NYCent. New York Central System, 466 Lexington Avenue, New York 17, New York.

The New York Central System produces films on various aspects of railroading, of interest to railroad employees and to the general public. The films may be borrowed for use within the United States; for use abroad they may be purchased. All inquiries should be addressed as above, attention Motion Pictures Bureau.

NYFL. New York University Film Library, 26 Washington Place, New York 3, New York.

The New York University Film Library is a service of the Department of Communications in the School of Education of New York University. It is especially concerned with the search for and the exploitation of films in the human-relations field, involving the relationship of man to his world. The Library emphasizes such categories as child study and development, psychology, economics, international relations, intercultural relations, etc., placing its major emphasis on man in relation to himself and his world.

A basic function of the Film Library is that of providing service to schools and organizations. Included in this consultation service is the planning of programs, guidance on selection of individual titles to meet special needs, previewing and evaluation and suggestions on outside sources of films.

Films the Library distributes are available in the U.S.A. on a rental or service charge basis depending on the distribution terms of each film, as determined by the sponsor. Abroad, films are available on purchase only. All inquiries should be addressed as above. When filmstrips are concerned they should be so addressed, attention Filmstrip Associates.

NYH. New York State Department of Health, 18 Dove Street, Albany 6, New York.

The New York State Department of Health uses health films to move the public to act--to ask questions concerning public health, to make changes in individual living habits and for the improvement of the community. The films the Department has produced are obtainable abroad by purchase; they are distributed free within New York State only. "Home Nursing in Pneumonia" should not be shown to mixed classroom groups. All inquiries should be addressed as above, attention Mr. Robert N. Crist, Supervisor, Health Film Library.

NYSCom. Department of Commerce, State of New York, Albany, New York.

The Department of Commerce, State of New York, produces films relating to aspects of life and commerce in the State of New York. The films are of interest to general audiences. Prints are available on loan (on specific approval of each request) for use both within the United States and also abroad, including television use. All inquiries should be addressed as above, attention Supervisor, Film Library, 40 Howard Street.

NYSExt. New York State, College of Agriculture, Cornell University, Roberts Hall, Ithaca, New York.

The New York State College of Agriculture, produces films relating to farming, poultry-raising, and homemaking, primarily for audiences interested in vocational and home-making guidance. The films are available for purchase or loan within the United States; for use abroad they may be purchased. All inquiries should be addressed as above, attention Department of Extension Teaching and Information, Visual Aids Service.

NYYOUTH. New York State Youth Commission, 30 Lodge Street, Albany 7, New York.

The New York State Youth Commission was created by the New York State Legislature in 1945 to study and analyze the problems of youth and the prevention of delinquency; to provide State financial aid to municipalities which operate approved youth bureaus, recreation and youth service projects; to foster cooperation of all youth serving agencies; and to stimulate educational programs in connection with delinquency and youth needs.
The Commission makes motion pictures for use in its work. They are obtainable on free loan in New York State only. All inquiries concerning those listed in this catalogue should be addressed as above.

OE. Federal Security Agency U.S. Office of Education, Washington 25, D. C.

In 1941-5 the United States Office of Education produced 467 16 mm., black and white motion pictures and 432 35 mm., black and white, silent filmstrips for vocational and industrial training. The films are "how-to-do-it" instructional aids which the filmstrips and instructor's manuals supplement and complete.
In units or separately the films and strips may be purchased from Castle Films, 1445 Park Avenue, New York 29, New York. Manuals are supplied free of charge.
In the United States the material may also be rented from some 16 mm libraries. The Office of Education does not lend or rent prints.
All exhibition of these aids (including television) is subject to published restrictions. Any additional information desired may be had on application to the Office of Education, address as above.

OFF. Official Sports Film Service, 7 South Dearborn Street, Chicago 3, Illinois.

This Service is under contract with the rules-governing bodies of various sports to produce motion pictures to illustrate current codes and to keep these productions in harmony with such codes. Therefore its films are obtainable on lease only, since they must be available for deletions and insertions which may be required to keep them in accord with codes liable to change. All inquiries should be addressed as above.

OHIO. State of Ohio, Department of Public Welfare, Division of Mental Hygiene, Columbus 16, Ohio.

The Division of Mental Hygiene, Ohio Department of Public Welfare, produces motion pictures to educate the public in respect to problems involved in mental disturbances, especially stressing that these problems can be solved and cures effected.
Its films are loaned free within the State of Ohio. For use elsewhere in the United States, "Problem Children" may be rented or purchased from the Psychological Cinema Register, Pennsylvania State College, State College, Pennsylvania, and "City of the Sick" may be rented from Association Films or purchased from the National Association for Mental Health, 1790 Broadway, New York 19, New York.
For use abroad, these films may be purchased from the Register and the Association, respectively.

OLIVER. The Oliver Corporation, 400 West Madison Street, Chicago 6, Illinois.

The Oliver Corporation made the film entitled "Neighbors of the Land" listed in this publication for general display, to encourage cooperation among farmers in soil conservation and land management. Prints may be borrowed. All inquiries should be addressed as above, attention, Merchandising Manager.

OREGON. Oregon State College, Corvallis, Oregon.

The films "Picking Hops", "Picking Strawberries" and "4-H Girls Bake Sponge Cakes" listed in this publication were produced by the Department of Visual Instruction, Extension Service of Oregon State College as training films. In the United States prints may be rented, as well as purchased. For use abroad they must be purchased. All inquiries should be addressed as above, attention: Department of Visual Instruction.

Ortho. Ortho Pharmaceutical Corporation, Raritan, New Jersey.

Prints of the motion picture entitled "Studies in Human Fertility" may be borrowed by responsible organizations for appropriate display. Requests for loan in England and Australia should be addressed to associate companies there. Requests for prints to be shown elsewhere should be addressed as above, attention Professional Service Division.

OVR. Federal Security Agency, Office of Vocational Rehabilitation, Washington 25, D. C.

The Office of Vocational Rehabilitation, Federal Security Agency, produces and distributes motion pictures (sometimes in cooperation with state offices) to inform the public concerning means employed to rehabilitate handicapped workers and concerning the contribution such rehabilitated workers make

to the general economy. In the United States prints may be borrowed. Inquiries should be addressed as above. For use abroad prints may be purchased (upon authorization by the Office of Vocational Rehabilitation) of DeLuxe Laboratories, Inc., 850 Tenth Avenue, New York, New York.

Owens-Ill. Owens-Illinois Glass Company, Toledo 1, Ohio.

As part of its public relations program the Owens-Illinois Glass Company makes films to inform the public concerning the manufacture of glassware and especially of processes employed by the Company. Prints of these films are available on free loan in the United States; and may be loaned abroad on request, if prints are available. Address all inquiries as above, attention Public Relations Department.

PAC. Public Affairs Committee, Inc., 22 East Thirty-eighth Street, New York 16, New York.

Public Affairs Committee, Inc., is a non-profit organization. It exists to advance public education on current economic and social problems. To this end it publishes pamphlets which are digests and analyses of research, and it also produces and distributes filmstrips based on such pamphlets. All inquiries concerning these materials should be addressed as above.

PaSWB. Pennsylvania Department of Health, Harrisburg, Pennsylvania.

The Pennsylvania Department of Health's motion picture entitled "Waters of the Commonwealth" was produced to promote a program for clean streams in the state of Pennsylvania. Purchase order should be addressed to the Jam Handy Organization, 930 Penn Avenue, Pittsburgh 22, Pennsylvania.

PCCI. Paper Cup and Container Institute, 1790 Broadway, New York 19, New York.

The Paper Cup and Container Institute is a trade association of the manufacturers of round nesting paper cups and containers used in the serving and packaging of food and beverages. It uses motion pictures to stress the importance of sanitation in the serving of food and drink and in the handling of eating and drinking utensils. Its films are for sale but may be available on short time loan in response to exceptional requests. All inquiries should be addressed as above.

PCGA. The Pacific Coast Gas Association, 447 Sutter Street, San Francisco 8, California.

The Pacific Coast Gas Association distributes the filmstrip entitled "The Secret of Hot Water Magic" to inform the public of the reasons why water heaters may cause dissatisfaction and how it may be avoided by installation of adequate equipment. Prints may be purchased. All inquiries should be addressed as above.

PCSA. Power Crane and Shovel Association, 74 Trinity Place, New York 6, New York.

The Power Crane and Shovel Association distributes the filmstrip "The Changing World", listed in this publication, for appropriate display in engineering and technical schools, before employees of engineering and construction companies, contractors and salesmen, to inform them concerning the design and use of power shovels, lifting cranes, clamshell, dragline and hoe. In the United States prints may be borrowed; for use abroad they may be purchased. All inquiries should be addressed as above.

PennSalt. Pennsylvania Salt Manufacturing Company, 1000 Widener Building, Philadelphia, Pennsylvania.

The Pennsylvania Salt Manufacturing Company, manufacturing chemists, made the films listed in this publication for display to dairy farmers, health officers, teachers, employees of dairy plants and other individuals and organizations interested in sanitation especially as applied in dairying. In the United States prints may be borrowed; for use abroad they may be purchased. All inquiries should be addressed as above.

PGC. Portland Gas & Coke Company, Portland 4, Oregon.

The Portland Gas & Coke Company distributes "Hot Water Helps" for showing before women's clubs, at sales meetings, wherever the sales points and household hints it contains will be effective. All inquiries should be addressed as above.

PHH. Dr. Paul H. Harmon, 936 Paramount Road, Oakland 10, California.

The film entitled "Removal of Lower Lumbar Inter-vertebral Discs" is an audio-visual presentation of the technique of this operation made for the information of surgeons. It is loaned free to surgeons and hospitals only. All inquiries should be addressed as above.

PHILC. Phil Carroll, 6 Crestwood Drive, Maplewood, New Jersey.

Phil Carroll (professional engineer in fields of timestudy, incentives and cost controls) has produced films designed to assist in teaching performance rating during time-study. They are used by industries, professional men and educational institutions. All films contain a series of paces unknown to the viewers. These are rated and plotted for comparisons with correct paces. They are arranged in several types and are graduated in difficulty. All inquiries should be addressed as above.

Phillips. Phillips Peteroleum Company, Bartlesville, Oklahoma.

Phillips Petroleum Company, made the film "The Other Side of the Fence" listed in this publication as part of its public relations program. In the United States prints may be borrowed free of charge; for use abroad they may be purchased. All inquiries should be addressed as above, attention Advertising Department.

PHP. Paul Hoefler Productions, 7934 Santa Monica Boulevard, Los Angeles 46, California.

Paul Hoefler Productions make motion pictures for instructional, cultural and informational purposes. Domestic inquiries should be addressed as above. Inquiries concerning use abroad should be addressed to Hollywood Photographic Manufacturers, 1801 South Olive Street, Los Angeles 15, California.

Pioneer. Pioneer Hi-Bred Corn Company, 1208 Mulberry Street, Des Moines 9, Iowa.

The Pioneer Hi-Bred Corn Company makes and distributes films to explain how by experimentation and long testing the Company has produced hybrid corn (which it sells for seed) and, by similar methods, has produced hybrid chickens to improve flocks and increase profits of poultrymen by raising flock quality and so raising production. In the United States prints of the Company's films may be borrowed for appropriate display. For use abroad prints may be purchased. All inquiries should be addressed as above.

POLAROID. The Polaroid Corporation, 730 Main Street, Cambridge 39, Massachusetts.

To disseminate information on polarization of light for the instruction of high school and college students, photographers and the general public the Polaroid Corporation produced "Light Control through Polarization" described in this publication. The film is loaned free of charge. In addition to the English version, Dutch, French, German, Portuguese and Spanish versions are available. Inquiries originating within the United States should be addressed as above. Inquiries from abroad should be addressed to Polarizers (N.Y.), Inc., 142 East 42nd Street, New York 17, New York.

POP. Popular Science Publishing Company (Audio-Visual Division), 353 Fourth Avenue, New York 10, New York.

The Audio-Visual Division of the Popular Science Publishing Company produces filmstrips in cooperation with recognized educational authorities and experienced classroom teachers for use in the schools of the United States and of other English speaking countries. These strips are basic curriculum teaching aids designed to complement and supplement existing courses of study and to provide teachers and students with instructional materials to simplify, amplify, interpret and make more meaningful curricular subject matter taught in elementary, junior, and senior high schools in the United States. All inquiries should be addressed as above.

Porta. Portafilms, 418 North Glendale Avenue, Glendale 6, California.

Portafilms produces educational films for sale. All inquiries concerning its productions should be addressed as above.

PRLumber. Pilot Rock Lumber Company, Pilot Rock, Oregon.

The Pilot Rock Lumber Company made the film "On the Trail of Pilot Rock Pine" listed in this catalogue as part of its public relations program, to explain scientific logging operations as carried out in the pine forests of the Pacific northwest of the United States. Prints are available on loan from film libraries among them the Public Library of Peoria, Illinois. For use abroad, prints must be purchased. All inquiries should be addressed as above.

PROG. Progressive Pictures, 6351 Thornhill Drive, Oakland, California.

Progressive Pictures produce films designed to save life by teaching street and highway safety. They are made in cooperation with traffic police, highway patrols and the National Safety Council. All inquiries should be addressed as above.

PROTO. Plomb Tool Company, Box 3519 Terminal Annex, Los Angeles 54, California.

The Plomb Tool Company distributes six motion pictures on use and care of hand tools. These films may be bought individually or in the complete set, one subject to a reel or three subjects to a reel, as preferred. They are used by safety engineers as well as training supervisors, and in shop classes in trade, vocational and agricultural schools (classes in farm mechanics). All inquiries should be addressed as above.

PSA. Play Schools Association, 119 West 57th Street, New York 19, New York.

Play Schools Association produced the film "Play is Our Business" listed in this catalogue as part of its development of work-play programs for school-age children in their out-of-school hours (after school in winter and all day in summer), with qualified leadership. The Association conducts year-round laboratory centers in partnership with the New York City Board of Education and provides consultative services and leadership training for local agencies conducting all-day summer play schools; extends its advisory services to schools, agencies and institutions interested in using play as a way of learning and group living as a means of furthering individual and social development;

orients teachers and group workers, and assists parents in understanding how good play programs contribute to mental health. In addition to the film, pamphlets and national field service are available. All inquiries originating in the United States and Canada should be addressed as above. Elsewhere they may be so addressed or to the nearest United States embassy or legation, attention Information Officer.

PugetT. Puget Sound Pulp & Timber Company, Bellingham, Washington.

As part of its public relations program and for the information of the general public interested in logging and the manufacture of wood pulp, the Puget Sound Pulp & Timber Company distributes the film entitled "Magic Fiber" listed in this publication. Prints may be borrowed free of charge. All inquiries should be addressed as above.

PURDUE. Purdue University, Audio-Visual Center, Lafayette, Indiana.

Purdue University produces films and slides as aids to its educational program. Each production is designed to illustrate definite points in that program. The films are rented as well as sold. Some of the films are for rent abroad as well as for sale. All inquiries should be addressed as above.

RALST. Ralston Purina Company, 835 South Eight Street, St. Louis 2, Missouri.

The Ralston Purina Company, distributes films and filmstrips on increased productivity of interest to dairy farmers, poultry raisers, agricultural agents and specialists; emphasis is on nutrition and embryology. All inquiries should be addressed as above.

RARIG. Rarig Motion Picture Company, Incorporated, 5514 University Way, Seattle 5, Washington.

The Rarig Motion Picture Company, Incorporated films on logging operations, described in this catalogue, are of interest to foremen, engineers, and management, as well as safety engineers. Within the United States prints may be rented. For use abroad, they may be purchased. All inquiries should be addressed as above.

RCA. Radio Corporation of America, RCA International Division, Gloucester City, New Jersey.

To acquaint the public with the kind and the quality of equipment and appliances the Corporation manufactures, the Radio Corporation of America produces films and filmstrips, among them Electrons on Parade listed in this edition. All inquiries concerning them should be addressed as above.

RECLAM. United States Department of the Interior, Bureau of Reclamation, Washington 25, D.C.

The Bureau of Reclamation, United States Department of the Interior, produces and distributes motion pictures to illustrate the federal government's work in irrigation, flood control, and reclamation. In the United States prints of these films may be borrowed free of charge for appropriate noncommercial display. Requests to borrow should be addressed to the nearest regional office of the Bureau. Prints may be purchased of United World Films, 1445 Park Avenue, New York 29, New York.

Repub. Republic Pictures Corporation, 630 Ninth Avenue, New York 19, New York.

The Republic Pictures Corporation produces films on aspects of life in the United States, intended for general audiences. All inquiries should be addressed as above.

RKO. RKO Radio Pictures, Inc., RKO Building, Radio City, Rockefeller Center, New York 20, New York

RKO Radio Pictures, Inc., is engaged in the production and distribution of motion pictures for entertainment. Those of its productions which are considered suitable for educational use are made available on long term license in 16 mm. versions, after theatrical release.

Domestic distribution of such RKO subjects is handled by the Mc Graw Hill Book Company, Inc., 330 West 42'nd Street, New York 18, New York. Inquiries from abroad should be addressed to the nearest RKO office in country of their origin.

ROBB. David Robbins Productions, 220 West 57th Street, New York 17, New York.

David Robbins Productions makes motion pictures for general informational and educational purposes. All inquiries should be addressed as above.

ROCK. Chicago Rock Island and Pacific Railroad Company, La Salle Street Station, Chicago, Illinois.

The film "Colorado-Vacationland Supreme", listed in this catalogue, is of interest to those planning to visit the State of Colorado for vacation purposes. Prints are available on loan within the United States, on acceptable request. All inquiries should be addressed as above, attention: Public Relations Department.

SAB. Society of American Bacteriologists, University of Pennsylvania, School of Medicine, Department of Bacteriology, Philadelphia 4, Pennsylvania.

For the Society of American Bacteriologists, its Committee on Materials for Visual Instruction in Microbiology distributes nineteen pictures listed in this Supplement. All were made by scientists of established reputation in the field of bacteriology. The production dates of some could not be ascertained.

The Committee publishes lists of motion pictures reviewed under its auspices. Abstracts of them, containing information concerning their authorship, content, value and distribution, are for sale, price three cents each.

All inquiries should be addressed as above, attention Dr. Harry E. Morton.

Schall. LeRoy A. Schall, 243 Charles Street, Boston Massachusetts.

The film "We Speak Again" was made to show that the rehabilitation of the laryngectomized patient is possible. Co-sponsors of the picture are the American Cancer Society and its Massachusetts Division. Dr. Schall was technical director of the production. In the United States prints may be rented or purchased; for use abroad they must be purchased. All inquiries should be addressed to Sturgis-Grant Productions, Inc., 314 East 46th Street, New York 17, New York.

SCHER. Schering Corporation, 2 Broad Street, Bloomfield, New Jersey.

Schering Corporation, which manufactures endocrine and pharmaceutical preparations, employs motion pictures in its program of dissemination of useful knowledge on edocrinology. Its films listed in this catalogue are intended for presentation before professional groups and as aids in the instruction of students of medicine. All inquiries should be addressed as above.

ScieFC. Scientific Film Company, 6804 Windsor Avenue, Suite 506, Berwyn, Illinois.

The Scientific Film Company produces medical, technical and educational films. The productions of this Company relating to dentistry, oral surgery, oral hygiene, and dental training are intended for the information and instruction of students of dentistry, and others concerned with dental problems and procedures. Sound films may be prepared in foreign language versions upon request, or silent versions may be provided to purchaser desiring to read the narration. All films are available for rental or purchase within the United States. For use abroad they may be purchased. Inquiries should be addressed as above.

SeaIntU. Seafarers International Union, Atlantic & Gulf District, 675 Fourth Avenue, Brooklyn 32, New York.

The film "This Is the S.I.U.," described in this catalogue, is of interest to seamen, and those concerned with union organization and activities. For use in the United States, prints may be rented from Workers Education Bureau, American Federation of Labor, 724 Ninth Street, NW, Washington 1, D.C. For use abroad, they may be purchased. Inquiries originating abroad should be directed to the Union, address as above.

SEFPS. Southern Educational Film Production Service, Inc., University of Georgia, Athens, Georgia.

The Southern Educational Film Production Service, Inc., cooperates with a number of educational institutions in the southern United States to produce motion pictures intended to advance education, agriculture and public health in that region. The film "Florida Wealth or Waste" listed in this catalogue is addressed to Florida school children. Within that state, it is obtainable on free loan.

All inquiries concerning the films the Service distributes should be addressed as above.

SINCL. Sinclair Refining Company, 600 Fifth Avenue, New York 20, New York.

Sinclair Refining Company sponsors films relating to various aspects of the petroleum industry, home and farm safety, and simplification of farm work. The films are intended for the information of the general public. For appropriate use within the United States prints may be borrowed. For use abroad they may be purchased. Inquiries concerning "Evolution of the Oil Industry", "Petroleum and Its Uses" and "Lubrication" should be addressed to the Bureau of Mines, Pittsburgh, Pennsylvania. Inquiries regarding "Paradise Valley" should be directed to Wilding Picture Productions, Inc., 285 Madison Avenue, New York, New York. Inquiries for "Farm Work Simplification" should be addressed to Florex, Incorporated, 815 Bates Street, Detroit 26, Michigan.

Sisal. Sisalkraft Company, 205 West Wacker Drive, Chicago, Illinois.

Sisalkraft Company sponsored the production "Money in the Bank," described in this catalogue. It is of interest to farmers, dairymen, cattle feeders, agricultural agents, and agricultural engineers. Inquiries should be addressed as above. Only short-time loans can be arranged.

S-M. Simmel-Meservey, Inc., 321 South Beverly Drive, Beverly Hills, California.

Simmel-Meservey, Incorporated, produces and distributes educational films and filmstrips.

All inquiries should be addressed as above.

SoCalG. Southern California Gas Company, 810 South Flower Street, Los Angeles, California.

Southern California Gas Company sponsors films relating to the production and use of natural gas. They are of interest to general audiences, and to engineers and management. For use within the United States prints may be borrowed; for use abroad they may be purchased. Inquiries for use abroad of "Westward Flow" may be directed to the nearest United States diplomatic or consular office, attention U.S.I.S. All other inquiries should be addressed as above.

Soco-V. Socony-Vacuum Oil Company, 26 Broadway, New York City, New York.

Socony-Vacuum Laboratories produces and sponsors films on various aspects of production and use of petroleum products. The films severally are of interest to fuel oil distributors, salesmen, and service men; service station operators, bus and truck fleet operators, schools, automotive clubs and engineering societies; and farmers. For use in the United States prints may be borrowed as well as purchased. For use abroad they may be purchased. Inquiries should be addressed as above, attention Film Library.

SoPULP. Southern Pulpwood Conservation Association, 1506 First National Bank Building, Atlanta, Georgia.

The Southern Pulpwood Conservation Association, an association formed by the southern pulpmills, has financed the production of five motion pictures intended to encourage the scientific management of forests. Its productions are loaned free in the southern region of the United States. For use abroad prints must be purchased. Reproductions in black and white can be made at prices lower than those of color prints. All inquiries should be addressed as above.

SOUTH. South Bend Lathe Works, South Bend, Indiana.

The South Bend Lathe Works produces and distributes motion picture productions intended to train operators in the correct use and care of lathes, lathe bits, etc. French and Spanish versions of the pictures are available. These films are loaned free within the United States and similar loan may possibly be arranged abroad. Prints may also be available from distributors of this company's machines in Argentina, Australia, Brazil, Colombia, Cuba, Ecuador, England, Guatemala, Israel, Mexico, Netherlands, Netherlands West Indies, New Zealand, Pakistan, Surinam, Thailand, Union of South Africa. All inquiries should be addressed to the nearest local representative of the South Bend Lathe Works, or as above, attention International Division.

SPGood. Dr. S. Philip Goodhart, 115 East Sixty-first Street, New York 21, New York.

Drs. S. Philip Goodhart and Benjamin Harris Balser produced the films comprising the Neuro-psychiatric Disorders Series listed in this catalogue. The films may be used separately or as a series, for display to professional medical groups and medical students. For use within the United States prints may be rented as well as purchased; for use abroad they may be purchased. All inquiries should be addressed to the New York University Film Library, Washington Square, New York, New York.

SPITZ. Dr. Rene A. Spitz, 1150 Fifth Avenue, New York, New York.

Dr. Rene A. Spitz produced the series of films "Studies—Problems in Infancy", described in this catalogue. The films are studies of a psychoanalytic research project on problems in infancy, of interest to professional groups, classes in psychology, psychiatry and child development, and study groups led by psychologists or professional workers with psychological training. "Grasping" and "The Smile of the Baby" may be obtained for use by lay audiences. For use in the United States, prints are available for rental or purchase; for use abroad they may be purchased. All inquiries should be addressed to New York University, 26 Washington Place, New York 3, New York.

SPOOL. The Spool Cotton Company, Educational Bureau, 745 Fifth Avenue, New York 22, New York.

The Spool Cotton Company has produced a filmstrip on the technique of applying zippers, for use by supervisors of dressmaking centers, of sewing teachers, clothing specialists and extension agents, to demonstrate how zippers are used in garment making. Instruction leaflets and sample kits are also available. All inquiries should be addressed as above.

SQUIBB. E.R. Squibb & Sons, 745 Fifth Avenue, New York 22, New York.

E.R. Squibb & Sons produce films which relate to preventive and curative medicine and anesthesia. Prints are available on loan for use within the United States or abroad, upon acceptable request for showing before medical groups. This company also produces films on the general subjects of medicine and pharmacy, such as "Rx-The Story Behind Your Doctor's Prescription," described in this catalogue, which are of interest to lay audiences. All domestic inquiries should be addressed as above. Inquiries from abroad may be directed as above, attention Overseas Division or to local Squibb branches in overseas areas.

StaCWa. State College of Washington, Pullman, Washington.

State College of Washington has produced and offers several films on subjects of importance to that institution. For use abroad, prints of the films may be purchased. All inquiries should be addressed as above.

STAND. Standard Brands, Incorporated, 595 Madison Avenue, New York, New York.

The film "Modest Miracle", described in this catalogue, is of interest to nutritionists and general audiences concerned with proper diet. Prints may be purchased for use in the United States or abroad. Domestic inquiries should be addressed as above; inquiries from abroad should be directed to Standard Brands International, address as above.

StaReg. Standard Register Company, Dayton, Ohio.

The film "Work Simplification Applied to Clerical Operations," described in this catalogue, shows how time and effort may be saved by rearrangement of work places and available equipment. It is of interest to accountants, management, methods and procedures specialists, industrial engineers and all others concerned to obtain increased productivity through improved methods and suitable equipment. All inquiries should be addressed as above.

STATE. U. S. Department of State, Washington 25, D. C.

The Department of State (IMS) uses documentary and informational films in the United States Government's information and educational exchange programs abroad. Prints of such films are frequently available in local languages. They may be obtained abroad on loan through the United States Information Service. Inquiries concerning them should be addressed to the nearest United States diplomatic or consular office, attention U. S. I. S.

STER. Sterling Films, Inc., 316 West 57th Street, New York 19, New York.

For schools, libraries and other educational organizations Sterling Films, Inc. produces and distributes educational and documentary films on music, social studies, science, physical education, literature, and child psychology. All inquiries should be addressed as above.

STRAN. Great Lakes Steel Corporation, Stran-Steel Division, Ecorse, Michigan.

The film, "Arch Against the Sky", described in this catalogue, is of interest to farmers and agricultural agents. Prints are available on loan for use within the United States or abroad. Inquiries should be addressed as above, attention Information Bureau.

STUD. The Studebaker Export Corporation, 635 South Main Street, South Bend 27, Indiana.

The Studebaker Export Corporation made the film "Wheel Sense" to promote safe driving by explaining the safety precautions the automobile manufacturer takes in building cars. Inquiries from abroad concerning the picture should be addressed as above. Within the United States its distribution is handled by Association Films, Inc., 35 West 45th Street, New York 19, New York.

SturG. Sturgis-Grant Productions, Inc., 314 East 46th Street, New York 17, New York.

As aids in teaching, for the establishment of authentic records and for use in the dissemination of results of research, Sturgis-Grant Productions, Inc., make motion pictures in the fields of medical endeavor (medicine, surgery, dentistry, nursing). Prints of the films listed in this publication under the symbol for this organization are for sale. They may be rented within the United States. They are intended for display on professional level only. All inquiries should be addressed as above.

SugReF. Sugar Research Foundation, Incorporated, 52 Wall Street, New York 5, New York.

Sugar Research Foundation sponsors films and filmstrips relating to the production, distribution, and use of sugar which are of interest to adult groups and schools. Domestic inquiries concerning "Crystal of Energy" should be addressed to Modern Talking Picture Service, Incorporated, 45 Rockefeller Plaza, New York 20, New York. In the United States "The Gift of Green" is available from film deposit libraries. Requests for prints of this subject which originate abroad may be directed to the nearest United States diplomatic or consular office, attention U. S. I. S. Inquiries regarding filmstrips should be directed to the Foundation, address as above. Teacher's manuals available.

SunbeC. Sunbeam Corporation, 5600 Roosevelt Road, Chicago 50, Illinois.

The film "Shearing the Farm Flock", described in this catalogue, is of interest to farmers and agricultural institutions. For use in the United States or abroad prints may be rented. All inquiries should be directed to United World Films, Incorporated, 1445 Park Avenue, New York 29, New York.

SunEC. Sun Electric Corporation, 6323 Avondale Avenue, Chicago 31, Illinois.

Sun Electric Corporation produces filmstrips relating to automobile electric systems, of interest to service managers, shop foremen, mechanics, and students. The filmstrips are obtainable by purchase for use within the United States or abroad. All inquiries should be addressed as above, attention Director of Education.

SVE. Society for Visual Education, Inc., 1345 West Diversey Parkway, Chicago 14, Illinois.

The Society for Visual Education, Inc., producers of visual teaching aids since 1919, makes filmstrips and slides on a very wide variety of subjects, graded from primary to college and adult education. All inquiries should be addressed as above.

SyracU. Syracuse University, Syracuse, New York.

Syracuse University produces films relating to the functioning of the University and to the work of its Reading Clinic, which are of interest to parents, teachers, students and alumni, and to university classes studying reading methods and remedial reading. All

inquiries concerning them should be directed to Audio-Visual Center, 121 College Place, Syracuse, New York. For use within the United States prints of "Why Can't Jimmy Read?" may be rented from local film libraries.

Tanner. Tanners' Council of America, Incorporated, 411 Fifth Avenue, New York 16, New York.

The film entitled "The Story of Leather", described in this catalogue, is of interest to schools, colleges, clubs, and industrial groups. Upon appropriate request prints may be made available on loan for use within the United States. For use abroad, prints may be purchased. All inquiries should be addressed as above.

TCCU. Teachers College, Columbia University, Bureau of Publications, 525 West 120th Street, New York 27, New York.

The Bureau of Publications, Teachers College, Columbia University, produces and distributes films to encourage improvement in school practices. The Bureau's pictures are obtainable abroad on sale only. Orders should be addressed as above. In the United States they may be purchased from the Bureau or rented from Columbia University Educational Films, 413 West 117th Street, New York 27, New York, or other film rental libraries.

TCF. The Twentieth Century Fund, 330 West Forty-Second Street, New York 18, New York.

The Twentieth Century Fund is a research foundation dedicated to the study of economic problems and to the dissemination of the results of its research to as wide a public as possible.

Inquiries concerning purchase or rental abroad of the Fund's film listed in this catalogue should be addressed as above. Concerning its purchase or rental in the U.S.A., inquiries should be addressed to Film Program Services, 1173 Avenue of the Americas, New York 19, New York. A discussion packet (pamphlets and guide) may be purchased of the Fund, address as above.

TdeC. Cholnoky, Tibor de M.D., 19 East 80th Street, New York 21, New York.

To disseminate information for the advancement of surgical techniques demonstrating the effectiveness of surgery in cancer of the face Dr. de Cholnoky has produced films which are available within the United States on loan. Abroad they are available on purchase at cost. Pertinent printed matter is obtainable on request. All inquiries should be addressed as above.

TeaBu. Tea Bureau, 500 Fifth Avenue, New York, New York.

The film "Tale in a Teacup," described in this catalogue, is of interest to students and persons engaged in the tea industry. For use within the United States prints may be purchased or borrowed. For use abroad, prints may be purchased. All inquiries should be directed to Tea Bureau Film Library, 13 East 37th Street, New York 16, New York.

TextWU. Textile Workers Union of America, 99 University Place, New York 3, New York.

The film "Union at Work," described in this catalogue, is of interest to labor unions, community groups, and educational institutions concerned with the structure and function of labor organizations. For use in the United States prints may be rented or purchased; for use abroad they may be purchased. All inquiries originating in the United States should be addressed as above. All foreign inquiries should be addressed to the United States diplomatic mission or consular office nearest to inquirer, attention U.S.I.S.

TFC. Teaching Film Custodians, Inc., 25 West Forty-third Street, New York 17, New York.

Teaching Film Custodians, Inc., is a distribution affiliate of the motion picture industry. It is a non-profit corporation administered by a group of educators, under whose direction short subjects are selected and made available to schools and colleges for educational use.

Within the United States, available films may be licensed on a long-term basis (three years or ten years) directly from Teaching Film Custodians, or rented on a short-term basis from numerous educational film libraries maintained by state university extension divisions.

Outside the United States, licensing and bookings of Teaching Film Custodians' films should be made in the various countries where these films are needed for use, through the exchanges of the producing companies indicated in the film descriptions as follows:

Columbia - - -	Columbia Pictures Corporation
MGM - - - - -	Metro Goldwyn Mayer
Paramount - -	Paramount Pictures
20th Cent-Fox	20th Century-Fox Film Corporation
Warner - - - -	Warner Brothers

All inquiries concerning "The Seasons" should be addressed to TFC direct, address as above.

THOR. Philip Thorek, M.D., 25 East Washington Street, Chicago 2, Illinois.

Dr. Thorek produces and distributes surgical record films, 16 mm., silent, in color, completely titled. They are amplified by roentgen studies, illustrations depicting the surgical anatomy and postoperative views of patients. All are available on loan within the

United States and abroad. They may be purchased at cost. A catalogue and other pertinent printed matter, obtainable on request. All inquiries should be addressed as above.

TompkF. Tompkins Films, 960 1/2 Larabee Street, Los Angeles 46, California.

"Green Gold of the Salinas Valley," described in this catalogue is of interest to those who produce or process head lettuce commercially, and to educational institutions. For use within the United States or abroad prints may be purchased. All inquiries should be addressed as above.

Transf. Transfilm, Inc., 35 West 45th Street, New York 19, New York.

Orders for purchase of this corporation's productions should be addressed as above. "Fundamentals of Tennis" may be rented in the United States from Association Films, Inc., 35 West 45th Street, New York 19, New York.

TULARE. Tulare County Chamber of Commerce, Municipal Auditorium, Visalia, California.

Tulare County Chamber of Commerce sponsored the "Garden of the Sun" described in this catalogue. The film is of interest to the general public, civic and service clubs, churches and schools. For use in the United States prints may be borrowed as well as purchased. They are similarly available for use abroad by responsible organizations when the schedule of domestic showings permit the loan. All inquiries should be addressed as above.

TVA. Tennessee Valley Authority, Knoxville, Tennessee.

The Tennessee Valley Authority, a corporation created by Act of Congress and financed in part by Congressional appropriation and in part by revenue from the sale of power, exists to operate a system of multiple purpose dams, chemical plants at Muscle Shoals and forest nurseries and research laboratories. The Authority cooperates with other agencies in matters relating to the development of communities affected by the TVA program and has produced films which are in fact public records of its activities.

These films are available on purchase abroad and on free loan in the U.S.A. All inquiries should be addressed as above.

TwC-FF. Twentieth Century-Fox Film Corporation, 444 West 56th Street, New York 19, New York.

Prints of the pictures which constitute the series known as "The World Today" may be purchased or rented for use abroad. Inquiries should be addressed as above, or to the Corporation's overseas offices, located in principal cities abroad. In Canada they may be addressed to General Films Limited, 1534 Thirteenth Avenue, Regina, Sask. The films, known also as "Our Land and People" series, are available for rental or purchase within the United States. Domestic inquiries should be addressed to Instructional Films, Incorporated, 1150 Wilmette Avenue, Wilmette, Illinois.

UCLA. University of California, Los Angeles 24, California.

The University of California at Los Angeles produces films and distributes them, and many others, to aid educators in their work. Within the United States prints of the University's productions may be rented. They are available abroad on purchase only. All inquiries should be addressed as above, attention Educational Film Sales Department.

UMINN. University of Minnesota, Audio-Visual Education Service, Minneapolis 14, Minnesota.

The University of Minnesota's motion picture production unit has been preparing films for campus departments, state organizations, and individuals for approximately 20 years. The unit produces materials to assist instructors and educational institutions to do a better job in their teaching fields. It also serves the State of Minnesota as a production center of educational materials of statewide interest. Brochures are available which describe the films and list their sale prices. All inquiries should be addressed as above.

UnderC. Underwood Corporation, One Park Avenue, New York 15, New York.

The film "Tips on Typing," described in this catalogue, is of interest to high school and business students, and typists desiring refresher information. For use in the United States prints may be borrowed of the Corporation, address as above. Inquiries originating abroad should be addressed to the nearest Underwood Corporation agency.

UniBC&J. United Brotherhood of Carpenters & Joiners of America, 222 East Michigan Street, Indianapolis 4, Indiana.

The film "The Carpenter," described in this catalogue, is of interest to carpenters, joiners, and members of allied trades, as well as to general audiences. For use in the United States, prints may be rented from Workers Education Bureau, American Federation of Labor, 724 Ninth Street, NW, Washington 1, D. C., or borrowed from the Brotherhood address above. Prints may be purchased under certain conditions. Foreign inquiries should be directed to the Brotherhood, address above.

UnitSp. United Specialists, Inc., Quaker Hill, Pawlings, New York.

United Specialists, Inc., make films for general commercial distribution. They also make motion pictures to orders received from organizations and institutions. All inquiries should be addressed as above.

UofC. The University of California, University Extension, Berkeley, California.

The University of California produces and distributes motion pictures as means to improve world understanding by extending understanding of areas near at hand, that is, understanding of the State of California and its problems, of the University of California, and of matters concerning which the University is particularly well informed.
All inquiries should be addressed as above, excepting those concerning the film "Plague" which was produced as a record film of work done at the University of California and to stress the importance of knowledge of bionomics of fleas in the study of plague epidemiology.
All inquiries concerning "Plague" should be addressed to the University's Medical Center, George Williams Hooper Foundation, San Francisco 22, California.

UofGA. University of Georgia, College of Agriculture, Agricultural Extension Service, Athens, Georgia.

The College of Agriculture of the University of Georgia makes motion pictures as means to disseminate especially in the State of Georgia information of benefit particularly to its rural population. All of these productions may be had on free loan in that state (on application to local county or home demonstration agents). Out of state bookings may be arranged for all (except "The Brighter Look" and "4-H Forestry Camp") through the Division of General Extension of the University of Georgia, Athens. Purchase orders should be addressed to the Calvin Company, 1105 Truman Road, Kansas City, Missouri, except for "4-H Forestry Camp". These should be addressed to Color Service, 115 West 45th Street, New York 19, New York. Copies of all orders should be sent to Agricultural Extension Service, University of Georgia, Athens, Georgia.

UofIll. University of Illinois, Division of Services for Crippled Children. 1105 South Sixth Street, Springfield, Illinois.

The University of Illinois produced the film series "Nursing Care in Poliomyelitis" listed in this catalogue to make known the techniques of treatment for this disease, all stages, which the experience of the Division of Services for Crippled Children has found effective. Prints of the film are available on loan on reasonable conditions or may be purchased. Address all inquiries as above, attention Dr. Herbert R. Kobes.

UofNeb. University of Nebraska, Lincoln 8, Nebraska.

The University of Nebraska produces films and filmstrips of interest to agricultural groups and general audiences. For use within the United States prints may be purchased or rented; for use abroad, they may be purchased. All inquiries should be addressed as above, attention Audio-Visual Instruction, University Extension Services.

UofWash. Instructional Materials Center, 401 Administration Building, University of Washington, Seattle, 5, Washington.

Campus Studios, University of Washington, make films for educational, public relations and experimental purposes. All inquiries concerning purchase or rental of prints should be addressed as above.

USArmy. United States Department of Defense, Office of Public Information, Washington 25, D. C.

Public information films distributed by the Department of the Army are available on a free loan basis for public non-profit display within the United States. Prints may be obtained from Army Area Headquarters. Requests for use of these films abroad should be addressed as above. Each such request will be considered on its individual merits. Prints of Army productions which have been released for public distribution may be purchased of United World Films, Inc., 1445 Park Avenue, New York 29, New York. Inquiries concerning purchase of those marked USArmy-UWF should be so addressed.

USArmy-P. Armed Forces Institute of Pathology, 7th Street and Independence Avenue, Washington 25, D. C.

The United States Army medical films and filmstrips listed in this publication were produced for the instruction and training of Department of Defense personnel. While all have, therefore, a military background, those listed will nevertheless prove of interest and use to non-military, medical, professional, and allied scientific groups. All inquiries concerning them should be addressed as above. Prints of Army productions which have been released for general distribution are obtainable on purchase from United World Films, 1445 Park Avenue, New York 29, New York. Inquiries concerning those marked USArmy-UWF should be addressed to United World Films.

USDA. United States Department of Agriculture, (Motion Picture Service, Office of Information) Washington 25, D. C.

The United States Department of Agriculture produces motion pictures and filmstrips, informational and instructional in type. They are designed to aid in disseminating information on agricultural products, their production, distribution, and utilization; to demonstrate improved methods in agriculture and home economics; to stress the need for conservation of soil and other resources, explain the farm credit system, forestry, land use, marketing, and kindred subjects, and to help increase the effectiveness of cooperative extension work.

These materials are for sale. Their exhibition is subject to published restrictions

which effect all U. S. Government-made films.

Inquiries and orders for 16 m m. films should be addressed to Castle Films Division of United World Films, Inc., 1445 Park Avenue, New York 29, New York.

In the United States these films may also be borrowed (small service and transportation charges) from libraries located throughout the country.

All correspondence concerning its 35 m m. motion pictures should be addressed directly to the Department of Agriculture, as above.

Correspondence concerning filmstrips should be directed to Photo Lab, Inc., 3825 Georgia Avenue, N. W., Washington, D. C.

USIndS. United States Department of the Interior, United States Indian Service, Washington 25, D. C.

The United States Indian Service makes motion pictures and sells them at cost for use in schools, libraries and other educational institutions, to inform those interested in condition of Indians in the United States today and in governmental policies for their advancement. Most of these films are intended primarily for the instruction, guidance and encouragement of the Indians themselves. The films are made on Indian reservations and Indians move through them as they do over those reservations in fact (without glamorizing). All inquiries should be addressed to Educational Film Laboratory, c/o United States Indian School, Santa Fe, New Mexico.

USNavy. Department of the Navy, Washington, D. C.

The United States Navy films described in this catalogue were produced for the instruction and training of Department of Defense personnel. In view of the large number of United States Navy films and filmstrips, which comprise various series, only the main title in each selected series is listed in this catalogue. United States Navy films available for use abroad may be purchased from United World Films, Incorporated, 1445 Park Avenue, New York 29, New York.

USoCal. University of Southern California, Audio Visual Services, Department of Cinema, 3518 University Avenue, Los Angeles 7, California.

The film "Control of Filariasis in Tahiti," described in this catalogue, is of interest to medical students, and medical missionaries and to the native population of Tahiti and nearby islands. For use in the United States prints may be purchased or rented; for use abroad they may be purchased. All inquiries, including requests for television rights, should be addressed as above.

USPHS. Federal Security Agency, United States Public Health Service, Washington 25, D. C.

The United States Public Health Service uses films to instruct the general public how to preserve health and prevent disease. The film program of the Service can be divided into three phases: the production of technical training films and filmstrips through its Communicable Disease Center (see CDC); the direct sponsorship of films on the preservation of health and the prevention of disease; and the joint sponsorship of, or participation in, the making of films with other groups of organizations (for example, see ACS). The appearance of the seal of the Public Health Service in the titles of a film means that the Service has been consulted during the production of the film and has given official approval to the final product.

In the United States, USPHS films may be borrowed through local departments of health. Abroad, requests for loan of U. S. Public Health Service subjects should be addressed to the American diplomatic mission or consular office nearest the applicant. Purchase of most USPHS Service films can be made through United World Films, Inc., 1445 Park Avenue, New York 29, N. Y. A few films require authorization forms, available from the Public Inquiries Branch, U. S. Public Health Service, Washington, D. C. Information concerning any USPHS film may be obtained by writing to the same address.

UtahI. Utah-Idaho Sugar Company, Salt Lake City, Utah.

The Utah-Idaho Sugar Company produced the film "Spring Mechanization and Weed Control in Sugar Beets" listed in this publication to assist sugar beet farmers to produce larger and better crops by intelligent use of latest machinery and best practices. All inquiries should be addressed as above, attention General Agricultural Superintendent.

UWF. United World Films, Inc. 1445 Park Avenue, New York 29, New York.

United World Films, Inc., produces motion pictures and filmstrips for entertainment and religious uses as well as for general instructional and teaching purposes. For display in the United States or abroad prints of the films may be purchased or rented from rental libraries.

United World Films is the official distributor (on sale only) of United States Government films and filmstrips which have been released for public display.

Films designated UWF-GB in this catalogue are Gaumont-British films edited and narrated by United World Films for use in schools and colleges in the United States.

UWis. The University of Wisconsin, University Extension Division, Bureau of Visual Instruction, 1312 West Johnson Street, Madison 6, Wisconsin.

The Bureau of Visual Instruction exists within the framework of the Extension Division of the University of Wisconsin to fulfill many functions with respect to the selection, use and production of audio-visual materials for Wisconsin schools and communities. The purpose is to produce films which effect a wide public service insofar as the welfare of the state of Wisconsin in concerned. These films are available on a handling charge or they may be purchased at cost plus minimum fee for handling. All inquiries should be addressed to the Bureau.

VaDeptE. Virginia State Board of Education, Richmond 16, Virginia.

The Film Production Service of the Virginia State Board of Education produces motion pictures to present the natural beauties, history, resources, and agricultural and industrial development of the State. It has also produced films on safety. These pictures may be rented within the United States or purchased for display in this country and abroad. All inquiries should be addressed to the Film Production Service.

Vassar. Vassar College, Poughkeepsie, New York.

The Department of Child Study at Vassar College has made a series of motion pictures on personality growth, some of which are listed in this publication. Made under normal nursery-school conditions, they document important problems of growing up and learning to fit into a family, a school, a community. They also demonstrate experimental clinical techniques. The films are designed for psychologists, education students, teachers, leaders of child-care centers, and others concerned with the wholesome development of young children. Within the United States prints may be rented; they may be purchased for use abroad. All inquiries concerning the films, and a publication entitled "Explanatory Notes on the Series," by Dr. Mary S. Fisher (Langmuir) and Dr. Lawrence Joseph Stone, should be addressed to New York University Film Library, 26 Washington Place, New York 3, New York.

VETS. Veterans' Administration, Washington, D. C.

The Veterans' Administration, Department of Medicine and Surgery, makes films and filmstrips for the training of its staff and to disseminate the results of their experience to individuals and organizations which can profitably use the material. The Administration's productions may be purchased of United World Films, Inc., 1445 Park Avenue, New York 29, New York. Within the United States they are loaned to legitimately interested persons and groups, on application to Central Film Library, Court 5, South Building, United States Department of Agriculture, Washington, D. C. Abroad, similar loans may be arranged through the nearest United States diplomatic or consular office, attention United States Information Officer.

Wayne. Wayne University, College of Education, Detroit 1, Michigan.

The College of Education of Wayne University made the films and filmstrips listed in this publication to assist teachers in their work with children and to show parents how they may assist. The materials are intended for use at parents' meetings and with preservice and in-service teacher education groups. Prints are for sale. All inquiries should be addressed as above, attention Audio-Visual Materials Consultation Bureau.

WayneD. Wayne Dinsmore, 407 South Dearborn Street, Chicago, Illinois.

Mr. Wayne Dinsmore, formerly Executive Secretary of The Horse Association of America, holds rights to the film "Horse's Gaits". It was produced by the Association, and is primarily of interest to horsemen. Inquiries regarding the film should be addressed to Chicago Film Studios, 56 East Superior Street, Chicago, Illinois.

WCFA. Washington Cooperative Farmers Association, 201 Elliott and West, Seattle 99, Washington.

The film entitled Market Wise listed in this publication is loaned free in Washington State. Outside that area it is obtainable on purchase only. The film contains advertising. It is, however, an effective portrayal of a large farmers' cooperative, shows improved methods of production and marketing, and modern machinery. All inquiries should be addressed as above.

WeCoLumb. West Coast Lumbermen's Association, 1410 S. W. Morrison Street, Portland 5, Oregon.

West Coast Lumbermen's Association sponsors the production of films relating to various aspects of the lumbering industry. The films are of interest to general adult audiences. Prints are obtainable on loan within the United States; for use abroad they may be purchased. All inquiries should be addressed as above.

WestH. Westinghouse Electric Corporation, 511 Wood Street, Pittsburgh 30, Pennsylvania.

The Westinghouse Electric Corporation produces and distributes motion pictures and filmstrips to disseminate general information on developments in the field of electricity. The Corporation also makes and distributes other films and strips intended to promote its own products. While these are not lacking in general interest they are not included in this catalogue. All inquiries should be addressed as above, attention Film Library.

WISTAR. The Wistar Institute, 36th Street and Woodland Avenue, Philadelphia 4, Pennsylvania.

The Wistar Institute uses motion pictures to disseminate scientific knowledge and demonstrate scientific skill. All inquiries concerning the Institute's films should be addressed as above.

WYETH. Wyeth, Incorporated, 1401 Walnut Street, Philadelphia 2, Pennsylvania.

As a service to physicians, Wyeth, Incorporated, manufacturers of pharmaceutical, biological, and nutritional products, produces films relating to subjects within the organization's fields of research. These films are of interest to members of the medical profession. Prints are obtainable on loan for use within the United States or abroad, upon appropriate request. All inquiries should be addressed as above.

YAF. Young America Films, Inc., 18 East 41st Street, New York 17, New York.

This corporation makes films and filmstrips for specific curriculum purposes and school use. They are made in consultation with curriculum specialists and expert teachers who check and evaluate to insure accuracy and teaching effectiveness. Teacher's Guides are available. The corporation's productions are for sale. All inquiries concerning use in U. S. A. and Canada should be addressed as above, also inquiries concerning foreign distribution of filmstrips. Except Canada foreign distribution of YAF 16mm films is handled by Loew's International Corporation, 1540 Broadway, New York 19, New York.

ZurAm. Zurich-American Insurance Companies, 135 South LaSalle Street, Chicago 3, Illinois.

As part of its public relations program the Zurich-American Insurance Companies make and distribute filmstrips on safety for display especially to industrial workers, to help reduce accident hazards. Inquiries originating in the United States may be addressed to local Zurich-American agents. Those originating where there is no local agent and abroad should be addressed as above.

UNESCO COUPONS

Individuals and institutions abroad desiring to purchase films, filmstrips, or projection equipment, but encountering currency difficulties, may wish to investigate the possibilities of using UNESCO International Coupons. Inquiries should be directed to the distributing body for UNESCO Coupons in the country in which the request originates, or to UNESCO Coupon Office, 19 Avenue Kleber, Paris, France.